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GEORGE WOOD CLAPP, D.D.S.

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THE DENTAL DIGEST

GEORGE WOOD CLAPP, D.D.S., Editor

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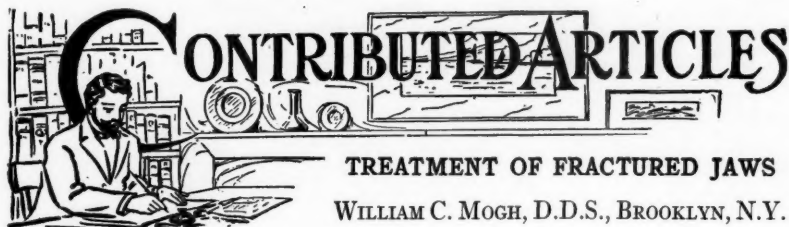
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Vol. XXII

JANUARY, 1916

No. 1



TREATMENT OF FRACTURED JAWS

WILLIAM C. MOGH, D.D.S., BROOKLYN, N.Y.

Case I

Patient—Mr. N. Age—50 years.

History—Was kicked in the face by a horse, causing a compound fracture of the superior maxilla. Was admitted to the Williamsburg Hospital, Brooklyn, on July 6th, 1915, in the service of Dr. Robt. Morrison, visiting surgeon.

I was called in on the case by the hospital and found the patient in great pain. He had a temperature of 105 and his mouth was a mass of splintered bone, process and pus. It took fifteen minutes of steady irrigation to get the mouth in a condition before I could see anything at all. Upon close examination I found the patient to be suffering from a compound fracture of the upper maxilla, one break being between the lateral incisor and canine of the right side, and the other between the lateral incisor and canine on the left side. He had also a simple fracture of the mandible on the right side, between the first bicuspid and the canine.

In Figure 1 we have a diagram of the fracture in the superior maxillæ.

The pain from touch was so great, that the patient had to be taken to the operating room, where I took the impression, first having wired the

case, to be sure the parts would not move when the material was forced in. From this impression I made a rubber splint which besides covering the teeth from the one first bicuspid to the corresponding tooth on the other side, also covered the palatal surface of the bone, and held the parts tightly in their normal relationship.

The fracture of the mandible was a simple one as is shown in Figure 2.

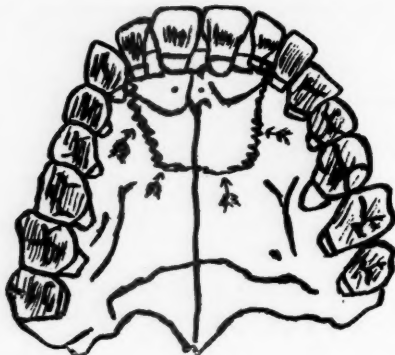


Fig. 1. Showing fracture of superior maxilla

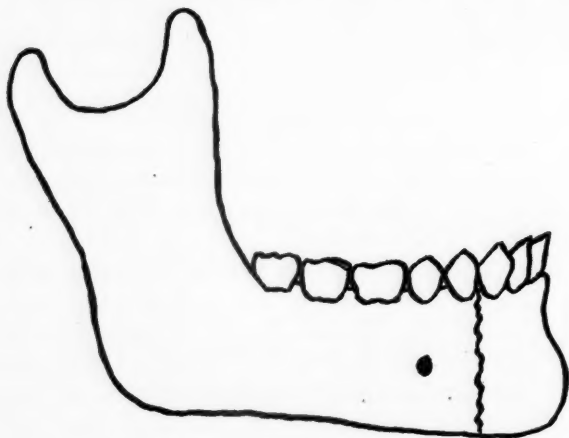


Fig. 2. Showing point of fracture

I took the impression with modeling compound, holding the two parts together. From the model of the impression the gold splint was swaged and then cemented on.

The case was dismissed in sixty days, when the patient was able to use his mouth as he had done before the accident.

Case II

Patient—J. Age—7 years.

History—Was run over by a wagon causing a fracture on the right side of the mandible. Was admitted to the Williamsburg Hospital, Brooklyn, on October 16th, 1915, in the service of Dr. Robt. Morrison visiting surgeon.

Being called upon to take charge of the case I immediately looked for crepitis, which I found on the right side of the mandible, as is shown in Figure 1.

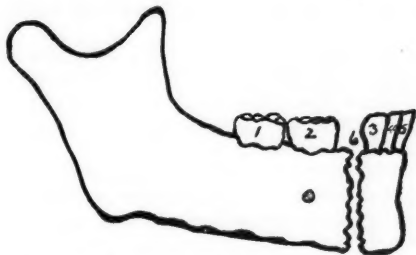


Fig. 1, Case 2. Showing the point of fracture

1. Temporary molar; 2. Temporary molar; 3. Temporary canine or cuspid; 4. Permanent lateral incisor; 5. Permanent central incisor; 6. Point of fracture.



Fig. 2, Case 2. Showing gold splint in place

1. Gold splint in place cemented to the teeth; 2. • Fracture in perfect contact.

It being a case of a simple fracture, I took an impression in modeling compound, being very careful to have my assistant in the case hold the jaw at the angle and the chin, making certain that there would be no chance of the patient moving and getting an incorrect impression. I then took a bite with soft wax to get good occlusion. The models were then made from the impression and bite, and from the model the splint was swaged, and then soldered, making a continuous gold splint, as is shown in Figure II.

In thirty-three days I took off the splint, and the patient had once more a perfect jaw and bite.

223 ST. NICHOLAS AVE.

CLOSED MOUTH IMPRESSIONS

BY SAMUEL G. SUPPLEE, NEW YORK

FIRST ARTICLE

CERTAIN PRELIMINARY CONSIDERATIONS

When I was graduated from dental college to practical work, plaster was regarded as the only proper material for taking impressions. After a year of partial successes mixed with some complete failures, I met a dentist who had learned how to whittle and scrape models so that plates made over them would stay up. I lunched with a denture patient once and was mortified to see him take out his plates "so he could eat."

I spent some years in the study of anatomical articulation without giving much thought to the impressions. Those who followed the published methods achieved better success than before, but certain failures of the dentures, not connected with articulation, were discomfiting. I know now that those failures originated in faulty impressions, bites, and models.

Then Mr. Supplee showed me things about impressions, of which I had never dreamed. I saw that the best articulated dentures might fail from unscientific impression taking and cast making methods. I saw him succeed with case after case where I should have stood no chance of success. Sometimes he had to try more than once, but he succeeded where from 5 to 15 dentists failed. And he succeeded because he has learned how to take impressions and bites and pour models and arrange teeth and vulcanize *in a scientific manner*.

I am very glad to have the opportunity of bringing the fruits of Mr. Supplee's work to the readers of this magazine. I am sure that those who follow his methods will achieve greater success than by any other methods I know of.

When the methods in all steps of denture making become scientific, we shall regularly achieve as great successes in this field as in operative work. We shall then be much better dentists and shall more nearly fulfil our mission of rendering good service to edentulous patients.—EDITOR.

The phrase "taking an impression and pouring a cast" has, for years, indicated practically all there was to be said of the technic of preparing a foundation on which a plate is constructed.

"Fitting a plate" has been the expression to describe the hours of filing and trimming after the plate has been vulcanized.

It has been well said that denture making by the old methods has been mostly guesswork, and that the honors have usually gone to the best guesser, or to him who was most skillful with scraper, stone or file. The arrangement of the teeth by the old methods of occlusion and on the old forms of articulators has also been mostly guesswork.

Among the questions which confront those who wish to do really professional service in dentures are the following:—Shall we aim to obtain impressions of the mouth from which to construct dentures in the usual way, or shall we construct in the mouth trial plates which will properly compress or displace soft tissues and at the same time hold the lips, and cheeks out to the positions necessary for restoration of expression and du-

plicate these in the finished dentures? The second question is: Shall we pour casts in plaster, which expands and which is easily compressed in the flask press or by the expanding vulcanite, or shall we pour casts in materials which are less subject to changes and less likely to defeat our best efforts?

In my article entitled "The Importance of Taking Impressions With the Mouth Closed and Under Biting Pressure," published in the October 1914 issue of this magazine, I called attention to the difference between an impression with the mouth open and the mouth closed. Many dentists have formed the opinion that the difference between impressions with the mouth open and the mouth closed constitutes the secret by which those who have made careful studies of mouths and materials have been able to make successful dentures for patients for whom all previous dentures have been unsuccessful.

Many have gained the idea that all they need to insure success is water heating apparatus, a set of trays and some modelling compound. The results of their impressions with closed mouths and properly heated modelling compound has been that their dentures have been more successful than ever before, but that a certain percentage of these cases has been successful for only a short time. The temporary nature of these successes has been due to imperfect conceptions of the mouth, of the materials employed and the methods best suited to their uses.

In addition to this, they have not grasped the idea that when no pressure is applied to a plate, it rests on the soft tissues, but when biting pressure is applied, the plate is forced against the soft tissues until they are either condensed or displaced into positions and conditions in which the soft tissues and the hard tissues bear the strain equally. This is equalizing the tissues to withstand biting strain. The successes mentioned above were temporary only because of the employment of improper methods in condensing or displacing soft tissues.

To eliminate guesswork from denture making, one must replace the rule of thumb methods of the past in impression and bite taking, arrangement of the teeth and laboratory work, with the scientific methods now offered in all these lines. For instance, both dentists and laboratory workers will profit by recognizing that plaster begins to expand as soon as it is set, and is easily compressible, and to the extent that it is affected by these changes is unreliable. During vulcanization the vulcanite first expands then shrinks and finally warps. Unless care is exercised to guard against these changes, our finest efforts may be frustrated by failures due to change in form of materials.

These changes in form can be guarded against by properly pouring casts of the non-expanding and practically non-compressible materials such as Weinstein's Artificial Stone, Spence's Plaster, etc.

In mouths where the muscular attachments are not pronounced and the vault and ridges are of equal density all over, we can take impressions in plaster, or any other kind of impression material regardless of the size of the tray, with the expectation that successful dentures will result. But even the prosthetic specialists have been obliged to admit that in cases which present difficulties from character of tissue or of form, modeling compound is far superior to plaster as an impression material.

In this series of articles I shall outline a technic of diagnosing conditions in the mouth, of impression taking and of bite making which has been successful in many cases where all other forms of technic have failed.

(This article is expected to be continued)

THE EVOLUTION OF A PROSTHODONTIST

BY SINCLAIR WEEKS, D.D.S., NEW YORK

This article was awarded the Fourth Prize in the Prosthetic Articles Contest.

Just before entering college to take up my studies in dentistry, I was fortunate in meeting a dentist of the old school who was ripe in experience as well as years, who offered me a few words of advice which must have burned deeply into my sub-conscious memory for they have stayed by me for twenty years. They were as follows—"Young man your success in this field will largely depend upon whether or not you possess a mechanical sense. If you do you can put it to no better use than to cultivate the highest degree of skill in the construction of artificial teeth. It takes a patient from six months to five years to find out what kind of gold filling you have inserted for him, but it only takes a few weeks to find out if you have made him a useful set of teeth."

It was a long time before I fully comprehended the significance of that advice and started out to follow it. After I was graduated and went out into the world to become acquainted with my chosen profession I found the majority of dentists had either, through lack of ability or indifference, pulled or pushed this very important branch of dentistry down to a low level and belittled it by calling it common plate work and relegated it the office girl or an outside laboratory. I determined to meet the very first opportunity which should present itself to allow me to perfect myself along these lines. Shortly after I went into a laboratory in a small city with an ethical man to "work out my salvation."

I received some pretty severe jolts in the next few weeks when I saw many of the important methods of technique which had been quite a respectable part of my college education thrust aside and in their place a

slip-shod trusting-to-luck-method. I was taught that excessive stirring of plaster caused great expansion, but I saw it mixed here as one would whip cream. I learned at college that the correct way to take a bite was to fit plates to casts with a stiff material and build them up with compound, but here I saw a roll of beeswax thrust between the jaws and the patient told to bite. I had cause to wonder if there was any standard of articulation, when I saw teeth set up on the barn door hinge, and when I finally dared to offer a mild protest, I was told that I was only talking theory and that plate work in reality was very simple and that I would soon master it, if I cut out the theory and came down to simple practice.

Experience is not only a great teacher, but it plays an important part in raising our standards. When a year or so later, I started in business for myself I was glad to be free to carry out some of the ideas which had been handed down from the men who had gone before and I learned as we all do sooner or later, that there is no short cut to success. After trying to take a few short cuts, I got right back to first principles and gave up the idea that plate work was "simple," I suppose I must have met with a certain degree of success for business began to come my way and I began to acquire a reputation as a plate maker. As I look back and think about the plates, I turned out I am pretty sure it took more skill to manipulate them than it did to construct them.

As the months went by I began to see the importance of this much neglected work; in place of drudgery, I saw that if one really possessed a mechanical sense it became more and more pleasant if not really fascinating. I saw that if one was to consider it serious business it meant careful study of each step of the process in the construction of a plate. That a perfectly fitting denture was never the result of guess work or luck. That because a plate might be good enough it was not necessarily just right. Two important steps I learned were essential, namely—a perfect impression and a perfect bite. This I held to tenaciously and my perseverance was rewarded to a satisfying degree. I also saw that if I was to excel I must go a little farther than the other fellow so I began to carve the gums. I always directed the patient's attention to this and it made a good impression. I also vulcanized over thin gold foil. This also pleased patients. I was careful to see that my plates were as thin as consistent with strength. The next year the Anatomical moulds came on the market and this gave me an opportunity to increase prices. I started in to educate my patients to see that there was a difference in plates, and invariably found that if the public was made to see by frank honest business talk that they were getting something better than the ordinary article they were perfectly willing to pay for it. Occasionally I would meet a patient who thought plates were plates regardless of how they were made

and would try to induce me to reduce my fee. I held rigidly to my scale of prices and explained to him that if I attempted to economize he would be the loser. I recall one man who was in very comfortable circumstances and perfectly able to pay, objecting to my prices and leaving the office, saying he would like to have me do the work but that he would never pay that price if he went without teeth all his life. Imagine my surprise when he returned to my office a year later and told me he had decided to have the work done. Two years later I moved to a larger field with greater opportunities to study improved and up-to-date methods. I found as I had in the small city, but in a much greater degree, a broad and unlimited field with opportunity continually pounding at the door of the man who could excel in high class plate work. I attended lectures and clinics and saw prosthetic dentistry advancing by leaps and bounds. I secured the Prosthetic Articulation and mastered the principles involved in the Greene-Supplee method of taking compound impressions, I became dissatisfied with trying to fit stock trays, secured a flask and thereafter cast my own trays.

With the appearance of Trubyte teeth on the market I began to talk efficiency as well as appearances. Discarding the illogical and out of date temperamental theory I drew an outline of the face and selected the teeth according to the Williams classification. By this method I have been able to select teeth that will harmonize with facial outline. I always set up the teeth on a Gysi articulator and try them in before vulcanizing. I finish the upper plate first and insert it to see that the bite is correct with the lower teeth which are still in the wax. This enables me to secure a perfect articulation.

At present I carve the gums and insert the rugae. I vulcanize all plates over Spence's plaster models to eliminate expansion and secure the necessary strength to resist breakage in the flask. I always take time (and consider it a most profitable investment) to explain all these advantages to my patients. I have no trouble to secure satisfactory compensation. I hope the next ten years will see prosthetic dentistry solidly placed on the high level in the profession where it logically belongs.

Editor DENTAL DIGEST:—

What is the best thing to do for a three year old girl who breathes through the mouth at night and snores as loud as an adult?

The physician says she has no adenoids. She has been breathing and snoring this way for about three weeks.

W. B. B.

A GREAT NATIONAL MOVEMENT

OBJECTS AND ACCOMPLISHMENTS OF THE NATIONAL MOUTH HYGIENE
ASSOCIATION RESULT IN INTERESTING PLANS FOR THE FUTURE

By W. G. EBERSOLE, M.D., D.D.S.,
SECRETARY-TREASURER-GENERAL OF THE N. M. H. A.

When Miss Cordelia L. O'Neill, who was then principal of Marion School in Cleveland, presented to the National Dental Association at its meeting in Cleveland in 1911, and later at the Fourth International Congress on School Hygiene, the twenty-seven members of her class as a living demonstration of what Mouth Hygiene could accomplish, the establishment of a national association was no longer a question. The visible evidence of the physical and mental transformation wrought in those children was greeted by the audience with a demonstration of enthusiasm that will never be forgotten by anyone who was present.

The National Mouth Hygiene Association was formed as an auxiliary of the National Dental Association July 28th, 1911, in order to unite under one efficient national organization the various oral hygiene working forces of the country. It has already a record of achievement of which both the professional and lay members may justly be proud and which should enlist the interest and support of the entire dental profession.

Among many laudable motives back of this national movement are the following, which appear in the preamble to the constitution and by-laws of the Association, as adopted at a meeting in Washington, D. C., last May:

1. The teaching of Mouth Hygiene and its relation to better health, increased mental and physical working efficiency, and consequent greater happiness;
2. To provide both the expert service and the funds necessary to enable the organized dental profession in every community to do those things that are for the best interests of its people;
3. To direct the attention of parents and guardians to the importance of dental services especially in childhood;
4. To eliminate the dental fakirs, charletans and fraudulent advertisers who subsist on the ignorance and credulity of the public;
5. To teach Preventive Dentistry and to recommend the employment of the highest type of professional services;
6. To promote the efficiency of the organized dental profession individually and collectively and to give it a wider, more responsive and more intelligent field in which to work;

7. To bring together actively not only the serious workers in the dental profession, but people of all other professions and vocations, and to enlist their united interest and coöperation in the expansion of the propaganda of Preventive Dentistry and Mouth Hygiene;

8. To act as a servant, aid and auxiliary, to both the organized dental profession and the American public to secure and retain the highest and most permanent benefits for all, through the realization of the objects first stated:

The incorporation of the Association under its present title, however, didn't take place until the annual meeting of the National Dental Association at Rochester, N. Y., in July, 1914. It is a corporation not for profit, and exists, as stated in the paragraphs just quoted, for philanthropic ends.

There is no question but that the influence of the Association has been one of the chief forces in bringing about a more enlightened public opinion on the subject of Mouth Hygiene in its relation to public health.

The importance of the movement has been fully recognized by national, state and local boards of health, by school boards all over the country, and by individuals and organizations interested in social welfare, while many of the leading men of the dental profession have given freely of their time, money and influence.

The responsiveness of the public has been made evident from the very beginning, not only by the interest shown in public dental clinics, but by the private donations for their support—notably at Boston, Rochester and Cleveland. This evidence, together with such encouraging indications as the extensive welfare work under municipal auspices at New York, Buffalo, Philadelphia, Detroit and Cincinnati, show the seriousness with which need of better Mouth Hygiene is regarded.

The Association has from the first been identified with related health organizations. It participated in the Fifteenth International Congress on Hygiene and Demography at Washington, in 1912, conducted a special session at the Fourth International Congress on School Hygiene at Buffalo in 1913, and a joint session with the Forty-Second Annual Meeting of the American Public Health Association at Jacksonville, Fla., in 1914.

When Mr. Taft was President of the United States he recognized the Association officially, and it has been endorsed by many state and local dental societies and prominent leaders in education, social and industrial betterment and general hygiene.

This success of the Association has doubtless been largely due to the fact that its founders recognized the need of organization from the outset, and elected a body of officers and a Board of Governors, composed of men and women whose reputation is a guaranty of an efficient service.

The President of The National Mouth Hygiene Association is Dr. Harvey W. Wiley, the great pure food expert, former chief of the U. S. Bureau of Chemistry.

Among the vice presidents are Dr. Rupert Blue, Surgeon-General U. S. Public Health Service, and now President of the American Medical Association; Dr. W. A. Evans, ex-health commissioner of Chicago, now editor of the Health Department of the Chicago *Tribune*; Dr. Oscar Dowling, President of the Louisiana State Board of Health; and William R. Malone, President of the Postal Life Insurance Co.

Turning to the Board of Governors we note such names as those of Prof. Irving Fisher of Yale University, Chairman of the Hygiene Reference Board; Miss Julia C. Lathrop, Chief of the Children's Bureau of the U. S. Department of Labor; while Dr. John W. Kerr, Assistant Surgeon-General, U. S. Public Health Service; Mr. Lewis Meriam, Assistant Chief of Children's Bureau of the U. S. Department of Labor; Mr. F. B. Dressler, Specialist in School Hygiene & Sanitation, Bureau of Education, Department of the Interior, have pledged service in research and extension work, and several of the U. S. Bureaus have been placed at the disposal of the Association in promoting its propaganda.

The working methods of the Association include extensive campaigns in different cities for the double purpose of community education and the raising of funds, a strong dental publicity department which secures wide publication of all news relating to the movement and many highly educational articles on Mouth Hygiene; and active coöperation with the work of allied organizations. One of the great objectives is the establishment of public dental clinics and school clinics in every town and city.

The prosecution of the work is assisted by the establishment of local auxiliaries, the Association furnishing the expert service to organize, finance and equip these auxiliaries in a manner which insures definite results and continued self-support, and around which can be centred the work of each community. Auxiliaries have already been formed at Dallas, Texas; Cleveland, Ohio; Washington, D. C.; Portland, Oregon; Kansas City, Mo.; Dayton O.; Canton, O., and Jacksonville, Fla., and the Association is proceeding as rapidly as possible to place these on a successful working and supporting basis.

Many other communities have taken steps toward the establishment of active auxiliaries and may be expected to follow the examples of those already mentioned. Among them are Louisville, Ky.; Joliet, Ill.; Atlanta, Ga.; Duluth, Minn.; Mobile, Ala., and Lynchburg, Va.

It is with a great deal of satisfaction that we call attention to our Department of Extension Lectures under the supervision of Dr. Edwin N. Kent (Director of Extension Lectures), Boston, Mass. (330 Dartmouth

St.) This Department is prepared to furnish illustrated lectures suitable to the various needs of Mouth Hygiene workers of the country. These lectures with a set of thirty-two (32) slides, which have been very carefully selected, are supplied to the organizations or communities desiring same at a cost of \$2.50 plus express charges both ways; thus making it possible for Mouth Hygiene workers to have at command this kind of service at a minimum cost.

It is evident that the Association has undertaken a great task and is prosecuting it with remarkable vigor. Raising the funds for establishing and maintaining such work on a national scale is in itself a large problem.

One of the most important of all meetings of the Association was held in the city of Washington on May 29th of this year. Many matters which had been pressing for attention were taken up and measures adopted which will strengthen the organization and extend its usefulness.

The work of the officers was recognized by their reelection.

The constitution and by-laws were amended to conform to the laws of the District of Columbia, and to facilitate the completion of the incorporation of The National Mouth Hygiene Association as a corporation not for profit.

The principal action necessary to conform to law in this connection was the creation of a Board of Trustees—this Board to be fifteen in number. The thirteen members of the existing Board of Governors, including the Secretary-Treasurer-General, were appointed to this Board of Trustees, the two additional members being the President of the Association and the Chairman of the Hygiene & Education Committee of the National Dental Association.

It was also necessary to change the formal title of the Secretary-Treasurer to "Secretary-Treasurer-General."

Further changes in the constitution were made in order to enable the Association to carry out its purposes and policies; and a preamble to the constitution was adopted setting forth these purposes and policies as given at the outset of this article.

The general financial problems of the Association also came up for consideration and important action taken which is expected in time, to result in larger and more dependable sources of revenue for the local and national philanthropic work.

Annual dues of active members were raised from \$1.00 to \$2.00 and new methods adopted for the sale and distribution of Mogene Dental Products.

Many members of the Profession are, of course, familiar with the fact that Mogene Dental Cream has for some time been manufactured and distributed under supervision and guaranty of The National Mouth Hy-

giene Association, with a binding guaranty that that portion of the proceeds of sale receipted by the Association shall be devoted to the National and local philanthropic work in the cause of Mouth Hygiene.

The Association was led to this action for two reasons; First, because it realized that here was a logical and effective means of increasing the funds available for prosecution of its philanthropic propaganda. Second, because it felt the need of a dentifrice which it could conscientiously recommend to the general public and the dental profession as one made under the supervision and guarantee of The National Mouth Hygiene Association.

Leading dentists throughout the country had requested the Association to do this, for the protection of the general public, who are unable to distinguish between reputable preparations and those containing ordinary commercial chalk, injurious disinfectants and antiseptics or other unsatisfactory ingredients.

The Association did not undertake the actual distribution of Mogene, however, until careful study had been given to the subject, and investigation showed that it was feasible to produce a dentifrice of the requisite quality, and to market it successfully.

It is eminently just and fitting that the Association, which has so much encouraged the use of dentifrices, should derive some support from their sale, instead of having its philanthropic efforts accrue wholly to the private profit of established manufacturers of dental preparations. Nothing undertaken by the Association, however, will be antagonistic to the interests of the manufacturers of reputable dental preparations—on the contrary, the success of The National Mouth Hygiene movement is greatly to their advantage.

Commercial distribution, of course, implies practical business methods, and the plans adopted at the meeting on May 29th will, it is felt, put the distribution of Mogene on a sound and thoroughly satisfactory basis.

To this end The National Mouth Hygiene Association authorized its officers to form an organization to be known as the Mogene Laboratories Company, which will manufacture Mogene Dental Cream and also Mogene Tooth Powder under supervision and guaranty of the Association, and distribute them through regular commercial channels by the most efficient methods of modern merchandising.

In addition, the plan for the distribution of Mogene products provides as heretofore for coöperative memberships in The National Mouth Hygiene Association or its auxiliaries, available on payment of One Dollar (\$1.00) by any person interested in promotion of the work. In return he receives four full packages of Mogene Dental Cream, which is the regular amount delivered at retail for one dollar.

This Coöperative Package has already shown great earning possibilities to the direct benefit of the local auxiliaries, and should develop tremendously with full realization of the opportunity by all active members.

The Coöperative Package, being distributed at the full retail price through the auxiliaries, can be sold at less "overhead" expense and approximately 50 cents out of every dollar can be applied to the funds available for local work.

It also is of great assistance in soliciting a large Coöperative Membership—and thus enlisting more and more persons in the cause of Mouth Hygiene—because the recipient gets back the full value of his membership fee in a dentifrice of exceptional merit, and knows that he is at the same time contributing half the purchase price to philanthropic work.

Another important advantage of this package is that it helps the sale of Mogene through the regular commercial channels. Those who are thus once introduced to Mogene almost invariably become enthusiastic users because of its pleasant flavor, entire freedom from grit or other injurious ingredients, and its superior cleansing properties.

The sale of Mogene to the great general public will be prosecuted by the most efficient methods of modern merchandising. Especially in cities where the local work of the Association is well established.

Mogene Dental Cream and Tooth Powder will be advertised to the public, and placed on sale at reputable drug stores and department stores. Each case of one dozen packages will contain a participation certificate to be held by the dealer until collected by the authorized local representative of The National Mouth Hygiene Association or the local dental organization. Return of these certificates to the Executive Offices of The National Mouth Hygiene Association will entitle the local auxiliaries to pro rata participation to such funds as may be set aside for the purpose from the general revenue of the Association.

This participation plan has been carefully worked out and should prove to be better than the benefit checks formerly used.

In all matters relating to receipt and disbursement of funds, whether from contributions, sale of Mogene products or any other source, the Association has made it impossible for any of its present or future officers to apply its revenue to any save its recognized philanthropic needs.

It is not only bound by its incorporation as an association not for profit, but by a definite guaranty—which has been widely published and is printed on the containers of Mogene products—as well as by contracts with auxiliaries and other local organizations.

To make doubly sure, the Association has appointed a National Board of Censors composed of the following well-known editors representing dental and educational journals and the public press:

Dr. C. N. Johnson, Chicago, Ill., Editor of *The Dental Review*.

A. E. Winship, Boston, Mass., Editor of *The Journal of Education*.

Dr. George Wood Clapp, New York City, Editor of THE DENTAL DIGEST.

Wm. C. Bruce, Milwaukee, Wis., Editor of *American School Board Journal*.

Henry C. Williams, Columbus, Ohio, Editor of *The Ohio Teacher*.

Dr. L. P. Bethel, Columbus, Ohio, Editor of *The Dental Summary*.

Frank B. Noyes, Washington, D. C., President, *Associated Press*.

These gentlemen are empowered to examine the books and records of The National Mouth Hygiene Association and its subsidiary organizations. Should they discover any evidence that the Association is not carrying out its obligations to the general public and to the dental profession, it is their duty to give such evidence widest publicity in the journals which they represent.

The dental profession has every reason to feel confident that the new plans for the manufacture and sale of Mogene products will be of great assistance in realizing the high aims and purposes of The National Mouth Hygiene Association.

In conclusion, I cannot be too emphatic in stating that The National Mouth Hygiene Association is a corporation not for profit, and will continue as the avowed servant of the organized Dental Profession and the American People in the effort to advance their highest interests and deserve and secure their unqualified support.

CONDITIONAL SALE OF DENTAL FIXTURES AND FURNITURE

(New York) Plaintiff claims that he purchased of defendants in April 1904 furniture and fixtures for which he agreed to pay upwards of \$900 in payments of \$20 per month, and that until the full payment of the purchase price the title to the furniture was to remain in the defendants; that up to January, 1907, he had paid thereon the sum of \$492. It appears that in 1904 there was some paper writing executed by the parties; the plaintiff claiming that it embodied the terms of the conditional sale above specified. The defendants deny that they sold the furniture to the plaintiff, asserting that they simply leased the same to him, and that the monthly payment was not to apply on a purchase price, but was simply rental for the use of the furniture, and that the plaintiff was not to become owner of the furniture in any event. Plaintiff defaulted in the payments at this time and defendants made an assignment of the furniture

and fixtures to one Pierce who demanded possession. The plaintiff brought this action contending that under section 65 of the Personal Property Law he was entitled to recover from the defendants all the moneys he paid to them on the purchase price of the furniture; that the defendants having retaken the furniture by the assignment of the lease to Pierce, and not having sold the same by public auction, there is due plaintiff from the defendants the sum of \$492 and interest for six years.

In the trial court judgment was entered for defendants holding the transaction to be merely a lease. On plaintiff's appeal to the Supreme Court this decision was reversed, the Court saying:

"Plaintiff's right to recover depends upon two important conditions, viz: First, that he purchased the furniture and was to have title when he paid \$946; and, second, that the defendants, or their successor in interest, retook possession thereof under the contract of sale. It was established that no sale of the furniture was had by public auction as provided by statute.

"The testimony on the trial will warrant no other conclusion than that the furniture was to become the property of the plaintiff when he paid the full purchase price. Treating the moneys paid either as being payments on the purchase price or as being rent for the use of the furniture, the transaction must be construed as a conditional sale, if upon full payment of the amount agreed to be the purchase price title to the furniture was to vest in the Vendee." (*Ostrander v. Bricka*, 154 N. Y. S. 786.)

DENTAL OFFICE SCENE OF TROUBLE

(Maine) A police officer who entered the reception room of a dentist on a matter of personal business does not, though he thereafter greatly disturbed the occupant and refused to leave when ordered, become a trespasser *ab initio*, the case being different from that of an officer lawfully entering upon property in execution of process, or of a guest entering an inn.

The Supreme Court of Maine so held in *Nichols v. Sonia*. The facts were as follows:

The defendant on the 2d day of December, 1914, at Bath, with force and arms broke and entered the dental office of said Nichols, situated at No. 81 Front Street, and thereby greatly disturbed plaintiff in the quiet possession of his office, and then and there remained after he had been ordered to leave, and vacate the office by the plaintiff. Defendant used insulting language, threatened violence, and used slanderous words while he remained in the office.

The evidence disclosed that plaintiff, shortly before half past 10 o'clock in the evening of the day alleged, was in the operating room of

the suite of rooms occupied by him as an office; that the rooms were lighted; that plaintiff was there in the transaction of his business; that at the hour last named the defendant, a policeman of the city of Bath, opened in the usual manner the door giving entrance to the suite of plaintiff, and entered one of the rooms, the door being latched but not locked. In this room was the wife of plaintiff. The defendant then made inquiries as to the future disposition of a cause in court which had recently been decided in his favor against plaintiff, and, upon receiving a reply, indulged in profane language, opprobrious epithets, and charges of perjury, declining to leave the apartment when ordered to do so by plaintiff. Suit was brought charging the defendant with trespass. The lower court entered a nonsuit and an appeal was taken to the Supreme Court where the nonsuit was affirmed. The Court in disposing of the case said, "The contention of the plaintiff that the defendant by his conduct became a trespasser *ab initio*, cannot be entertained. Defendant did not enter in the discharge of any of his duties as policeman. His entrance was not by authority of law, as is the case of an officer lawfully entering upon property in execution of legal process or of a guest entering an inn. The office was alight, the hour not unreasonable, the place improper, nor the inquiry impertinent. His errand was one of business, and we must find upon the evidence that, if not an invitee, he was in by license of the occupant.

The exceptions to the order of nonsuit must therefore be overruled. Exceptions overruled. (Nichols v. Sonia, 95 A. 209.)

DENTIST ENGAGED IN SALE OF PROPRIETARY MEDICINES

(New York). The New York Supreme Court in *Kilmer v. Dr. Kilmer & Company* has held that an injunction will be allowed to restrain a partner in a patent medicine business from receiving and opening any mail addressed in a manner from which it appeared that the communication was intended for the other member of the firm personally or professionally.

Prior to 1892 Dr. Andral Kilmer a dentist and Jonas M. Kilmer were engaged as copartners in the manufacture and sale of patent medicines. In 1892 Andral sold the business to his brother for \$40,000. The sale included all trade marks, copyrights, labels, wrappers, circulars, pamphlets, etc. Needless to mention the good will of the business was also transferred. Andral was to receive 25 per cent. of the profits of the business.

In 1901, Jonas M. Kilmer sold the business to his son Willis Kilmer who after engaging in the manufacture of the patent remedies until 1909 sold the business to a corporation. The corporation adopted the name of the Dr. Kilmer Company.

Dr. Andral Kilmer brought this suit against the corporation to enjoin it from using the prefix "Dr." or from using his picture and receiving mail addressed to Dr. Kilmer. His claim was that the corporation wished the general public to believe that he was still connected with it. Kilmer asked the court to enjoin the company from receiving and opening mail addressed to Dr. Kilmer or even to the Dr. Kilmer Company. The court granted the injunction saying that defendant knew, or ought to know, that a letter addressed to plaintiff with the prefix "Doctor" or with the word "Personal" on the envelope was for him. The defendant knew or ought to have known, that when a person writes to any address containing the name or designation of a professional man that letter contains a private and confidential communication not intended to pass through hands who have no right to know its contents.

The defendant had the right to manufacture and distribute for sale, and advertise the same, all of the medicines originated by Dr. S. Andral Kilmer and transferred to Jonas M. Kilmer; it had a right to designate them as so originated and compounded by Dr. Kilmer, but it has no right to so use the plaintiff's name as to lead the public to believe that he was still responsible, by reason of active supervision, for the contents of a bottle covered in part by his portrait and name. (*Kilmer v. Dr. Kilmer Co.*, 154 N. Y. S. 982.)

WHAT I LIKE ABOUT MY DENTIST

BY C. D. B., PLAINFIELD, N. J.

Thinking that the results might prove interesting to the readers of THE DENTAL DIGEST, I recently asked a number of women in my home town what they liked about their dentists. Their replies I append below verbatim—they speak for themselves.

"He doesn't put his whole fist in my mouth."

"He stops the minute he sees he's hurting me."

"He arranges his appointments so systematically that I don't have to wait long in the ante-room."

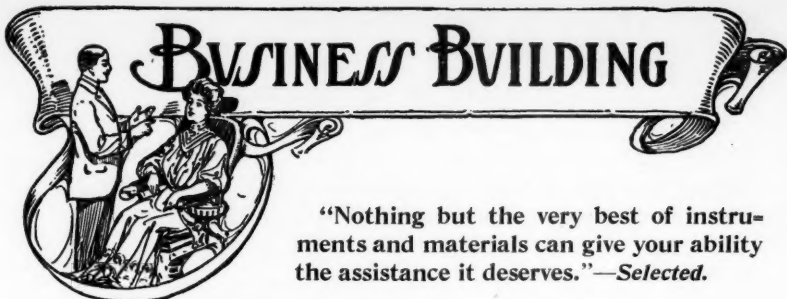
"His waiting room is so cheerful and cosy that I don't mind waiting."

"He doesn't keep you in the chair until you never want to see him or his office again. He believes in shorter appointments and so do I."

"He's a careful workman, he never blunders."

"He's a good conversationalist. He helps me to forget I'm having my teeth fixed."

Some of these "reasons why" may seem hardly important but they're all actual "women's reasons" and perhaps they'll carry just a suggestion for better service to someone.



"Nothing but the very best of instruments and materials can give your ability the assistance it deserves."—Selected.

THE BUSINESS SIDE OF PROPHYLACTIC AND RESTORATIVE PRACTICE

By W. F. SPIES, D.D.S., AND GEORGE WOOD CLAPP, D.D.S., NEW YORK

FIRST PAPER

If a prophylactic and restorative practice is financially profitable, it enables the dentist to render patients important services and to receive proper remuneration therefor. If it is not profitable, the dentist will be unable to apply to such service a high degree of skill, patients will be deprived of benefits they should enjoy and the dentist will not receive proper remuneration for his skill and labor.

Few dental practices are financially successful save as the result of careful attention to their business side. Some practices make money because the fees for some kinds of service are higher than is justified by the costs of those operations, which is unjust to the patients who receive those particular forms of service. In practices where fees are fixed in this way, the fees for other forms of service (such as consultations, treatments, etc.) are often disproportionately low, which works injustice to the patients who paid the high fees and to the dentist.

It will be much better for all concerned when fees for the several forms of dental service can be determined with justice to all patients and to the dentist, so that no one pays more than he should and the dentist is always sure of adequate payment for his labors. The object of this series of articles is to show how each dentist may learn what each form of service costs him and what are the minimum fees which are fair to his patients and himself.

We are unable to fix such fees for any individual dentist, but we have kept such detailed records and have access to such office cost reports from other dental practices that we are able to state approximately what many operations cost dentists in practices where the gross receipts vary from \$1,500 to \$5,000. We offer this information in the belief that this form of knowledge affords the only intelligent basis for determining minimum fees, and in the hopes that it may inspire other dentists to develop exact information concerning their own practices.

ESTIMATING OFFICE COSTS

College costs	\$1,000	
Three years' time at \$500	1,500	
		<hr/>
		\$2,500
Reception Room Investment		102
Operating Room Investment		820
Laboratory Investment		130
		<hr/>
		\$3,552

OPERATING COSTS:

Depreciation (10% of first cost of office investment) .	\$105	
Refunding investment (5% annually of total investment)	175	
Rent	334	
Heat	12	
Light	45	
Phone	12	
Laundry	26	
Assistant	(?)	
Publicity (cards, tickets, etc.)	10	
Express and postage	12	
Taxes	(?)	
Insurance	5	
Magazines and books	10	
Society expenses	15	
Laboratory bills	100	
Supplies other than precious metals	160	
Precious metals	140	
		<hr/>
		\$1,161
Total practice annually		<hr/>
		\$2,500

Fig. 1.—Illustration of a chart which has been found useful in determining office costs. It is here shown as filled in for a well conducted practice with gross receipts of \$2,500 annually. This is believed to be about the average size of practice.

THE ELEMENTS OF COSTS

The cost of any operation to any dentist can be determined only by learning what it costs him to conduct his office during each income-hour and then multiplying that cost by the hours or fractions thereof involved in the operation. If precious metals or teeth were employed, their value should be added to the product of the hour-cost and the time.

The income-hour cost can be easily determined with approximate accuracy. The items of cost in fitting the dentist for his special vocation, and of establishing, equipping and conducting the office should be tabulated. The form illustrated in Figure 1 has been extensively used but may be modified as desired.

OFFICE HOURS AND INCOME HOURS

The hours which the dentist spends at his office may be conveniently referred to as office hours. It is believed that under ordinary conditions these hours should number about 2,000 per year. Dr. W. J. Holroyd submits the following table showing how the number is determined. This number of hours permits proper attention to business and to the study and recreation which are so necessary to mental advancement and physical health:

365 days	
52 Sundays off	
<hr/>	
313	
6 holidays before mentioned	
<hr/>	
307	
28 days' vacation	
<hr/>	
279	
21 days for dental meetings at different parts of the year	
<hr/>	
258 or 37 weeks per year, less $\frac{1}{2}$ day per week, making	
18 $\frac{1}{2}$ days subtracted	
<hr/>	
239 $\frac{1}{2}$	
Multiplied by 8 hours in office	
1916* office hours per year	

Not all of the office hours can be employed in service for which full fees can be charged, and some time will be so employed that no fee can be charged. Time is usually lost in greeting or dismissing patients, in

*Very few dentists can take one half day off every week in the year and 28 days' vacation and this 1916 hours will doubtless extend to 2,000 hours.

visits, by friends or business people, in making appointments, in telephone calls, in charity work, and in other ways, leaving only about 4 hours a day actual income hours. The income-hours afford the only exact and satisfactory basis for determining costs and estimating fees.

Experience seems to show that of 2,000 office hours per year not more than 1,000 will be income-producing hours under even the most favorable conditions, and in many practices the number will be much less. The estimates of costs which follow are based on 1,000 income-hours per year in the belief that this number will not often be exceeded.

CLASSES OF PRACTICE

In order to render our time records valuable to dentists in determining their own operation-costs it has been necessary to divide practices into classes to determine the income-hour cost for each class, and then to multiply our time records by the income-hour costs.

Class I practices of less than \$2,000 gross receipts annually.

Class II practices of \$2,000-2,999 gross receipts annually.

Class III practices of \$3,000-3,999 gross receipts annually.

Class IV practices of \$4,000-4,999 gross receipts annually.

Class V practices of \$5,000-5,999 gross receipts annually.

It will be found easy to remember the classes if it is observed that the class number is the same as the first figure of the total receipts.

Practices will hereafter be referred to by these numbers.

(This article will be continued next month)

HOW TO MAKE AND SAVE A COMPETENCY FOR OLD AGE

I see in your November number, an article entitled "A Compensation For Old Age," that has induced me to write these lines, not to find fault nor to criticize, for in the main I agree with the writer, and as I have been a practitioner of dentistry for over thirty years, I think I can tell the beginner a lot.

This is an age that realizes the power of Corporation or Coöperation, and to succeed in our profession to the extent of gaining a competency these principles have to be applied—so let us get to work and form a corporation of the following Stock Holders:—

1st. *Mr. Talent.* He is hard to describe, but most anyone can tell him after seeing him design and execute some appliance, he is the first and most essential party and do not attempt to run business without him.

2nd. *Mr. Like.* This does not mean that you have to be dead in love with every detail of the profession, but it does mean that you are to

look upon it with pride and as a choice and not as a compulsion. It means that you are to enjoy seeing things work, and that you really feel as though you are doing something worth while. Remember that there is no business that does not have its objectionable feature.

3rd. *Mr. Qualify.* Be certain that his name is what he says and that he keeps, day by day, busy, to keep up with the times and if he changes his name, see that it be to *Qualifying*, that means continually at it.

4th. *Mr. Stick.* That means keep at it. Yes, everlastingly at it, (but this does not mean that you are to take no rest). The public like to patronize a busy man—be occupied whether you are or not, professionally, you see?

5th. *Mr. Equip.* Supply yourself with a good outfit, especially instruments and keep a sharp lookout for the new things that come along but be careful not to invest in everything advertised and in nothing until you are confident it will prove what you want.

Do not throw away your old instruments entirely to use the new, but get such of the new as you can use and appear well. I have some of Frank Arnold's make of instruments, especially forceps, that I have had from the beginning and they are not plated (as that was before the day of plating everything), but for service, for real adaptableness, there has never been better made. While I have scores of other forceps, I frequently in difficult cases reach for the Old that I know are tried and true—instruments are like friends. It is well enough to make new friends and try them, but do not throw off the old tried and true ones, because they are not nickel-plated.

6th. *Mr. Fee.* Charge reasonable but *compensating* fees and make no apologies for so doing.

7th. *Mr. Appearance.* Keep your office as well as yourself and instruments, sanitary, clean, attractive, but keep an eye on the expenditures for same.

8th. *Mr. Relaxation.* Take time for recreation and especially the one day in the week, the Sabbath—God knew what was best for man physically as well as spiritually, and he says "Rest on the Sabbath." I have tried it and I know that it is true. Every few years take a week or ten days off and go back to the college from which you were graduated—visit the old members of your class if they are on your way, and note how they are getting on and you will find that you will learn and be improved by seeing how some have succeeded better than you, and you will feel a sense of pride and encouragement in seeing how much better you have done than some others.

If you live in a country town, go to the city for a vacation, now and

then, and keep your eyes and ears open to all that is to be seen and heard. When you get there, get a good nice clean, respectable place to stay; this does not mean that you are to go to the swellest hotel there and fill your stomach full of things that you are not used to eating, and make not only a hog of yourself but a fool as well. Leave off drinks and dopes.

If you are located in the city go to the country for this vacation. Go to the mountains where Him, Bob, Mam, Sal and Beta live and see how they spend life. Get a good mountain breeze, and listen to the trickling streams. Do not fail to take your fishing tackle along, there is nothing that will thrill you like the bite of a trout or black bass. I went out the other day and strung up fifteen black bass (beauties they were).

My boy about eleven years old went with me and he caught two and got quite a number of strikes that he failed to land and the other night he said to me "Father, I can just feel those fish biting yet, can you?" Yes, and hope to all winter. Try it, but do not spend too much time.

gth. *Mr. Economy.* Be economical and I do not mean by that to be stingy and stint yourself and family, but keep well within your means—have good, well cooked, wholesome food for yourself and family, for it is more economical, to say the least, than doctor's bills and drug expenses. Wear, and let your family wear good, neat, clean clothes, but in all things be not a spendthrift for this will not only take your money but teach your family bad habits.

Do not try to keep up with the fellow who has inherited a lot of money and has nothing to do but fool it away. It is well enough to have him as a patient, but not as a chum.

Refrain from useless, hurtful and expensive habits, among which are drinking, doping and the use of tobacco. I will specially mention only the last named, (but many others bear a similar solution) the use of tobacco does not help your appearance, but quite the reverse. It does not help your physical condition, but in many if not in all instances, it is hurtful. The pleasure, if any, is more than offset by the displeasure in not being able to indulge many times. How about the expense of it? I began the use of tobacco by the advice of a physician, about the time I did dentistry, and after using it a while I took an inventory of myself on that line and I soon saw that it did me no good, but harm. It did not make me look any better, nor did it make me smell any better either.

In that inventory I figured that at the present rate, (about 7 cigars a day) it would, within thirty years cost me enough to buy a nice home.

I quit and to-day I am living, fully paid for, in a nice home saved in this way, (just make the calculation and it will amaze you) and I expected also to have some boys and I did not want to set them that kind of an example and so you see that I will not only be benefited, but future

generations also. If you are already a user of it, you will say "that you can not quit it," and I agree with you that it is hard to do, but the only way is to quit and stay quit—yes quit, and in twenty years or less you will have saved for yourself and family, a nice home, and just think, too, of the offensive odor of tobacco you have saved your patients from inhaling.

10th. *Mr. Literature.* You should keep some good literature in your office for your waiting patients and be certain to read up yourself on all current events. A good daily paper and at least two good weekly periodicals should be read and at hand all the time.

11th. *Mr. Congenial.* You should learn not only how to handle patients while in the chair, but how to meet them and especially how to dismiss them; all this requires knack and study of human nature as you can not do with all just alike.

12th. *Mr. Personality.* You should be yourself and not imitative nor affected. Do not expect to please everybody for Christ did not do that but stand for your rights and principles on all lines and be able to give reason for the faith within you.

13th. *Mr. Financier or Mr. Investor.* Now, I hope you are not superstitious about the number thirteen and if you are you may add other Stock Holders, but see that you have at least these named. Do not expect this last named party to be so perfect as to make no mistakes for he will make them by doing things he ought not do and worse, by not doing things he should do, but do not attempt nor expect to succeed so as to reach the point set out without this last named partner.

I look all around me and I see monuments to my folly by doing the wrong thing as well as for not doing the right thing.

Remember that there is but one kind of a man that makes no mistakes and that is *A dead man.*

This Stock Holder is hard to describe because times, conditions and places vary so much. A very great deal depends upon how you invest your money, because years of earnings can be swept from you in the twinkling of an eye. No one can tell you how to do this for as above said, times, condition and places are not all alike. But for the past twenty years investments in real estate have been the safest and best in all sections of the country, and is getting better in many sections and especially in the South. Good farming, grazing and timber lands have been and always will be the best on this line. Shy at mortar and brick or tenant property, as they are too much trouble and expense to look after. Run from Boom Town property, do not listen to the Boom promoter when he tells you that such and such a lot, now covered with brush and sedge grass, will eventually bring thousands of dollars, for I tell you from personal experience that most of them will not bring the taxes, eventually.

Fear Mining Stock as you would satan and in fact all kinds of stock for several reasons! One is, that they contain too much water and what is not water, is wind. Remember the earth's surface is about three fourths water and too plentiful to pay such a high price for it.

Loans on lands secured by deeds of trust have always been good and always will be if made on good titles and not over half the selling price on forced sales. This will yield 6 per cent. and good as gold. I could loan thousands and thousands of dollars thus secured.

Many things could be said about financiering, but time and space are not sufficient here.

Now, if all these Stock Holders work together continuously and harmoniously, you ought to be able to lay by a competency in tangible property to yield you a sufficient income to supply your needs, say \$30,000 and that even 4 per cent. will yield you \$1,200 a year or \$100 a month.

Be not discouraged if you have set your competency at \$30,000 in 30 years if the first years do not yield the thirtieth of this or \$1,000 for the first \$1,000 is the hardest to get and remember that what you save should be put to work to help make a part of the next \$1,000 and so you will see that when you have saved \$1,000 and put it to work that it pays \$50 a year on the next at 5 per cent. interest and so on.

The above results can be reached as I can testify from experience, but I want to say that it takes "get up" and "hustle," yes and plenty of it, for this is no small matter, it is a man's job, to reach this point and to defray the heavy expense of keeping and educating a family. It takes a head and back-bone and everlastingly sticking to it—you will have to pay the price.

I might speak further about a Competency in Old Age in the way of Boys, as I have four of them. It is a very poor boy, when well cared for and educated, that is not worth \$30,000 to his parents or that could not nor would not take care of faithful parents in old age, so if mine pan out all right they will be worth \$120,000 on a cash basis to say nothing on other lines.

The above is rather long, but it is not imaginary nor speculative, but knowledge from actual experience.

Now, you imagine that I am an old wornout man, but you are entirely mistaken, for I have laid up a Competency in strength and youthfulness by observing the Laws of Nature and stouter to-day than when 25 years of age. Lay up a competency in strength and youthfulness by right living and not by idleness and laziness. Very few kill themselves by work, but multiplied thousands do by dissipation, and they say, I am working myself to death.

N. W. D.

HOW CAN HE BETTER CONDITIONS?

Editor DENTAL DIGEST:

I take the liberty of writing you about a subject that is of vital importance to me, and which gives me no little trouble.

The dental fees in our little city are the lowest in the state, and if you will pardon me for going into details which are excusable when writing about a subject of this kind, I will explain the situation as follows:

H—— is a town of about 7,000 population and is surrounded by a fine back country. There are three dentists here including myself. Dr. A—— has been here in active practice for thirty years, and Dr. B. for about 18 years. Dr. A. is about 50 years old and related to a number of people in the country. He had the fees down so low that a man can hardly make a decent living, unless he is a very fast operator and has a wonderful constitution; all of these this man possesses. Our fees are as follows:

Cleaning teeth	\$.50
Amalgams50
Gold fillings	1.00 up to \$2.00 and then a gold crown
Gold crowns	2.50 to \$4.00
Vulcanite dentures	8.00 to 10.00
Filling with Amalgan and treatment	1.00
Porcelain crown.	2.00
Extraction25
And all other operations accordingly.	

I have been here for nine years, and during that time I have tried to get Dr. A. to raise the fees, and he says that the people will not pay them. He gives very long credit and does not try to collect, and this is a great drawback to one who wants to run this part of the business in a better way. Dr. B. I think, would be willing to raise the fees if A would agree, but we have to hold back on account of the latter. This old fellow has the most wonderful grip on the people that I ever saw, and they will believe anything he says. He guarantees all his work, and no matter how long it has held good, he will put it back free of charge. Until three years ago he did excellent work, considering his immense patronage. He works from six A. M. to eight P. M., and his long hours without rest, are telling on him. He is growing very nervous and suffers with terrible headaches in the summer, which causes him to be more irritable, to the loss of a patient now and then.

If he had to sweat over making a bridge a few times, he would charge more for his work. He takes an impression of the abutments, and when the bridge comes he grinds the teeth to fit the bridge. He keeps single

gold crowns in stock and has all his plate-work done. This way allows him to work all the time at the chair at small fees, and being such a fast operator, his cheap fees will amount to something. And up to two years ago he worked all day Sunday; but now 'tis only half that day that he takes.

I have written in detail about the above man to give you an insight into his methods. I have come to the conclusion that only death will remedy things, and if it ever does bring relief it will bring it here. This man's way of doing is the talk of the fraternity of this state, and if you have ever seen a constitution of steel, this man has it.

I have read of the successful sanitary dental office, but it is not worth three cents here where people would wade through filth to get cheap work. I have read of the man who was complaining all the time when he should work that much faster. But what is there in all this, if, after the day is done, you have nothing for your labors, save a tired body and are sick at heart. There is plenty of work for us three, but nothing in it.

Now Doctor, if you will pardon a few remarks as to myself, that you may be more ably informed as to the situation here, I will give them. I worked my way through one of the first colleges in this state, that I might prepare myself to more intelligently practise dentistry. I have been in this noble profession long enough to peep over the starvation period—nine years. You know where fees are good, and a young man is not getting much to do, they will bridge him over; but when they are low it takes many operations to make something. I have sufficient confidence in myself, not to overvalue my ability, for none of us ever get to that stage where we cannot learn something. I can say that I am a dentist who does good work, keeps abreast with the modern methods, a member of the dental society, and a slow operator, but thorough.

I hope you will pardon me for taking so much of your valuable time; but if you ever did go into Macedonia to help a fellow, I need your assistance to see if you can tell me the best way to better conditions here.

E. S. G.

AVOID APPETIZERS

One group of students had a good dinner without alcoholics, a couple of hours later, digestion was found well advanced; another group, the same dinner, preceded by a cocktail, digestive processes imperfect, owing to the presence of alcohol.

Serious and permanent interference with digestion was proved by these experiments. The appetizer, so called, is in reality a devitalizer, destructive of normal processes of the digestive apparatus and of the mental powers in direct proportion to the frequency with which it is taken.—*Experiments at Yale.*

A REPLY TO M. F. R.

By H. K.

In responding to the request of M. F. R. in the November DIGEST, that an ethical man reply to his article, I would say that I believe I have at least one qualification for the task:—Namely, that for twenty years I have remained an ethical man, in spite of the fact that I have a very small practice, along with the responsibilities of a family. Of course, advertising holds no temptation to a man of large practice.

I believe that a brief answer will meet the case of all those who, like M. F. R., so freely use the pages of the DIGEST to advocate disregard of the dental code of ethics. All dentists are in honor bound to play the game according to the rules. Let the advertising men and the quacks take a leaf out of the sportsman's book. All of them know what happens to the football player who violates the rules, or to the prize-fighter who fouls an opponent. Even in so crooked a game as gambling the unfair player is ostracized, simply because he will not abide by the rules of the game.

None of us was born a dentist. We entered the profession by deliberate choice, and so entering found certain rules in vogue, which are known as the dental code of ethics. Such rules constitute an integral part of the profession. In this respect dentistry is not peculiar, for every calling, from law and medicine down to hod-carrying, has its code. True, in every calling men are to be found who will not follow the code, which has given use to such terms as "shyster," "quack" and "scab." The unfair man must pay the price.

Every calling contains men who are devoid of the ethical sense, and to preach ethics to them is to cast pearls before swine. If life holds no higher ambition than the making of money, then the advertiser and the quack are fully justified. But some men are so constituted that they care more for the respect of their fellows (and their own self-respect) than for money, and would choose to remain poor, rather than degrade a profession, and incidentally degrade themselves. If a man can do nothing to elevate this calling, he should at least leave it no worse off than he found it. Common honesty demands that much. He was not taught his profession in order that he might mangle it.

I am aware that advertising and quackery present the unethical man only in his grossest form, and that back of him stands his sly brethren, who are forever given to the detraction of their competitors. The latter perhaps, are the worst "scabs" of all.

Owing to its comparative newness and the grade of men who have

been allowed to matriculate in dental colleges, dentistry contains a far larger proportion of unethical men than law or medicine; but, notwithstanding the financial success that appears to attend the unethical men, signs are not wanting that their days are numbered. The requirements of the profession are continually calling for men of higher caliber, and ere long the colleges will consult their own interest as well as the interest of the profession and the public, by weeding out men who lack comprehension of those finer elements that characterize the truly professional man. Until that day, "virtue is its own reward."

ANSWER NO. 2 TO M. F. R.

Editor DENTAL DIGEST:—

"Can you answer this man," was the heading on a communication by M. F. R. I do not know what M. F. R. stands for, but my little daughter suggested "Money for Rot."

It is deplorable to learn that a man whom I suppose has a dental college education, can indulge in money-making as described in your last issue.

I think the most of the men who read the *DIGEST* will put aside the article with a sigh as I do when I glance at our local Sunday newspaper supplements with heading such as this—"Have rats souls?" and then a half life size picture of the particular "nutty" professor who produced the essay.

M. F. R. says that his shrewd business man got business on the square, but what about the "secret" local anesthetic? I have my opinion of M. F. R. who feels neglected because the Dental Society to which he perhaps paid a dollar or two did not help him out in dull times. I hope M. F. R. will rest from future contributions about his wrinkles, for about two years exploit in his home city and then report on the permanency of his adventure.

N. J., MINNEAPOLIS.

ABSCESS LANCET:—For an ideal abscess lancet, take a new Duplex Safety Razor blade, divide at opening in centre. Make point on one end; on other make shank to fit cane socket handle; cement in place. Then you have a lancet that will cut without tearing. The lips of wound will have tendency to flare open instead of closing up.

C. I. FAISON, D.D.S.

Dallas, Tex.

MY WAY OF FIGURING THE COST OF AN INLAY

BY C. A. G., GRAND RAPIDS, MICH.*

For many years I managed my office in a haphazard way, but one fortunate day I ran across the first edition of "Brother Bill's Letters." After beginning the book, I did not drop it until it was finished and, I can assure you, it was a "hip, hip, hurrah!" for Brother Bill.

My first move toward a better method of managing my office was to raise my prices for dental services to those received by first class dentists in our city. With fear and trembling and much doubt as to results I made the experiment of higher prices on my first *new* patient. The result was so satisfactory that from that time on I became braver and the higher prices were soon a fixed habit.

It is my opinion that the only safe plan for the average dentist to follow is to place his prices on a par with those of the leading dentists of his community. Should he be more than an average dentist, a sort of a wizard in fact, he may be able to hold his prices above the leading men of the profession, but not otherwise.

My next and most important move was to make a complete refurnishing of my office, for as the clientele who were to pay the advanced prices must come from a wealthier class of people they would demand an up-to-date equipment, as well as first class dental services.

Various plans were adopted by me from time to time for putting my business on a permanent financial basis. But all of these were finally abandoned for one which I have termed the salary plan; the adoption of which I would recommend to all dentists whether young or old. This plan briefly stated, was to put myself on a weekly salary, to which I adhered as strictly as though I had been in the employ of some other dentist. At first I decided to estimate this salary by the amounts which my compeers were receiving and those whom I knew best at that time were making from twenty-five to forty dollars per week. I took the highest amount, forty dollars, and every Saturday night took home to wifey an envelope containing a forty dollar check. This check was to take care of all expenses incurred outside of the office.

In a few months I was able to raise my salary to fifty dollars per week and now for a year I have been drawing seventy-five dollars per week. It is my ambition to raise this salary to one hundred dollars per week after January first, 1916.

To draw this salary I found it necessary to raise prices from time to time and to adopt ethical methods of advertising, which is another story.

Enthusiasm and the art of salesmanship also entered into these successful conditions.

The second requisite in adopting the salary plan was to decide as to the number of hours per day and the number of days per month to be spent at work. After careful consideration seven hours a day and twenty days a month seemed the average time consumed.

The overhead expenses of a dental office vary so largely in different cases that it is difficult to put a fixed price on this matter. In my own case, after figuring rent, investments in equipment and other incidental expenses with ten per cent. depreciation of same, I found it cost me



"Every Saturday night I took home to wifey an envelope containing a forty-dollar check"

approximately one dollar an hour, for seven hours a day, for twenty days a month. With my salary of seventy-five dollars per week, which figures two dollars an hour for the same number of hours and days, I found that I must average twenty-one dollars per day, or four hundred and forty dollars per month. I am able to do this by making a charge of six dollars for the inlay mentioned and a proportionate charge for all other time spent by myself at the chair. My assistant does all casting, finishing, etc., giving me all my time at the chair which would average four hours, a day of hard, nervous work. With these figures it will be seen that I have plenty of time for tennis, fishing and traveling in the summer and hand ball for exercise in the winter, all of which keep me in fine condition physically and mentally.



MY DEAR JIM:—

I note your resentment of my statement that your low fees have wrought injustice to yourself and your patients. You admit that your fees are low and that you wish they were higher, but you say that as long as they are what they are, you are happy in the thought that they have done a great deal of "good."

I've discovered, since reading your letter, that you and I have very different meanings for the word "good." Of course I don't know exactly what you mean by "good" but from your letter I think you mean that because of your low fees your patients are better off than they would be if you had charged them remunerative fees.

First, however, I want to give you my idea of doing "good" to paying patients. It is to render them the highest form of service I can, to teach them its worth and to charge fees that will make them respect my work and me.

Now your idea of "good" seems to be in terms of money. Of course you don't define it so out loud, or perhaps even in your own thoughts, but if I read your letter correctly you try to be happy in the thought that your low fees have saved your patients money. The fifty cents or five dollars you let them carry away in their pockets is the expression of your idea of doing them "good."

Your idea might impress me more if I didn't know the town, but you must remember that I grew up there and that I know about the financial condition of all the prominent people except those who have come in since my day. I'm going to use this knowledge to see if I can't prove your idea of "good" is wrong.

When I visited you awhile ago, I watched several of your operations for old friends of mine, and I am sure you did not do them "good" in any form. Take Harry Herter for example, who owns half the bank and half a dozen other things about town. He came in to have you clean his teeth, as he does every month. You spent half an hour on his teeth and charged him a dollar. I didn't run an instrument up under the bifurca-

tion of the upper first molars, where the gum has receded, but I noticed you didn't give him anything like the amount and kind of service I think his mouth needs, and would be much better for receiving. Also, you should have charged him \$1.75 for the half hour you gave him, and then you wouldn't have needed to go down to the office and work that evening to make up the loss. It would have been much better for Harry, in teeth, if you had put in two hours and charged him \$7.

Perhaps you think saving Harry the spending of the 75 cents you didn't charge him, was doing him "good." You've known and served



"If you can make Harry put down his cigar long enough to hold a mirror and let you show him what recession in his gums promises"

Harry for a long time, and some day when you are going by the bank, you might go in and say "Harry, I feel that I should like to do you some good; here is 75 cents." I've known Harry and his picturesque profanity since we were boys, but if you can imagine what he would say, you can do better than I. Yet that would be better than the basis on which you are serving him.

I'll tell you what will happen when some bright young dentist who understands the proper basis for doing "good" comes to town. He'll serve and educate his patients so well that they'll look up to him and brag about him. And some day Harry will go in there to get his teeth "cleaned" and will get a new experience in service and will pay \$5 or more for it, and will say to him just as I've heard patients say many times,

"Doctor, I wish someone had done this for me years ago," and go out thinking about the service rather than about the fee.

Take Mrs. Hutchins as another example. You put a mesioocclusal inlay in her lower right first molar and seemed quite pleased when you got \$7 for it. You got all the inlay was worth because it will not do a number of very important things it should. As your practice brings in \$3,500 per year, that inlay cost you about \$8.40. The occlusal surface was practically flat. It wasn't formed to hold the opposing tooth in position, or to articulate with it, or to divert the food from the contact point into the embrasures and so preserve the papilla. The inlay seemed to fit the margins well enough, but the upper molar slides just a little when it occludes on the inlay. In a little while that upper molar will move to where it doesn't have to slide, and that will be out of proper alignment. I know because I've made the same mistake. Food will crowd between the contact point and the adjoining tooth because the inlay isn't shaped to divert it, and a "meat-hole" will result.

Now if you had spent 30 minutes more on the occlusal surface of that inlay, if you had mounted your counterdie and opposing model so that you could have moved them laterally and "chewed out the articulation" and then shaped the surface to divert food away from the contact point, and charged Mrs. Hutchins the \$11 you would have been entitled to at your costs, you would have preserved that tooth indefinitely, instead of insuring trouble in a few years as you have now. I don't think you did Mrs. Hutchins "good." I think, as the boys say, you "did her up good and brown," because she's going to lose that tooth 10 years before she should, and the money you charged for the work. And that will discredit dentistry and you in her eyes.

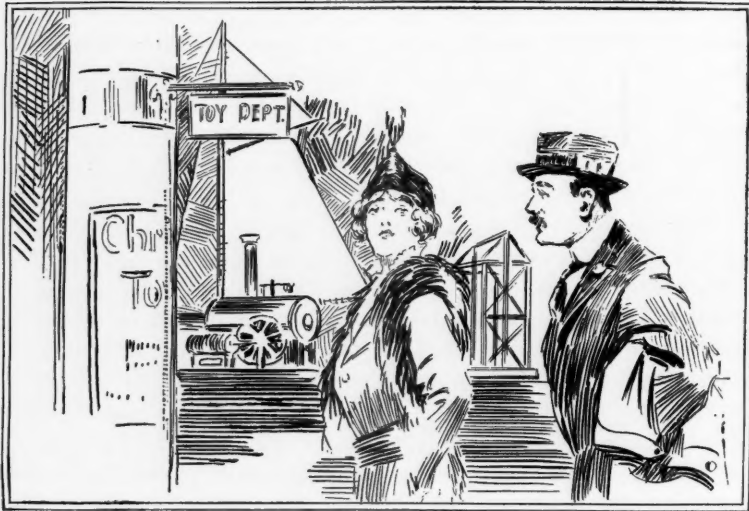
If you want to save the Hutchins family money, try the plan I suggested for Harry Herter. Mr. Hutchins isn't rich, but he is about 100 times better off than you are, and is a self-respecting merchant. You try saving them money at the expense of service they need and let them find it out, and see how long you will continue to serve them. They know where true economy lies and they are too shrewd to always be fooled about it.

Of course I know people in the town to whom every dollar is precious. There are old Mr. Day and the Allen sisters and half a dozen others whom you serve, who haven't a cent to spare, but who are as fine people as any in town. They aren't poor people; they're just short of worldly goods. You can do these people real "good" by rendering them a good quality of service at low fees and you ought to be in a financial position where it would be a pleasure to you, a little "sweetening," so to speak, of your daily labors.

The trouble is you have mixed your people all up. Because you can

do these people good by serving them at low fees, you have transferred that idea to everybody. You treat them all alike. That has been a failure for most of your patients and for yourself and your family.

People like Harry Herter and Mrs. Hutchins have spent their lives trying to get value for their money. In all things concerning which they have been educated, they know where true economy lies, and they are willing to spend \$10 now to save \$25 in five years if you can show them the saving. If you can make Harry put down his cigar long enough to



"Compare the prices paid for toys this Christmas with the prices our parents paid for toys for us"

hold a mirror and let you show him just what recession in his gums promises for the future, and then explain what you can do by keeping every surface polished and free from irritation, and then that it will take long enough to cost him \$5 a treatment, he will say "go to it, Doc, go to it." You would then address yourself to the form of appreciation he understands, present expense but final economy. And you could feel happy in doing it because you will preserve his teeth much longer than you will with the present treatment.

If you had explained to Mrs. Hutchins what the present form of inlay at \$7 will do to her mouth in from 2 to 3 years, and what the other form of inlay might be expected to do, she would probably have thought a moment and said "Doctor are you quite sure it will be worth the difference?" and if you replied, "Quite sure," she would have said, "It seems a little

high, but I want to save my teeth, and you may do as you suggest." And when she went out with that inlay, you could have been happy in the thought that it would serve her indefinitely.

With proper fees from Harry and Mrs. Hutchins and a hundred others, you would be in a financial position to serve old Mr. Day and the Allen sisters and a few others at purely nominal fees.

I contend that your idea of doing "good" is wrong, that you do not good but evil to all concerned. It is time to wake up, to take your eyes for a moment from teeth and look at people. Observe them in the stores. Compare the prices they have paid for toys this Christmas with the prices our parents paid for toys for us. Note whether the shoddy toys at low prices are bought by even those people who are in moderate circumstances. Ask Mr. Hutchins to tell you. He knows. When I complimented the appearance of his store, he told me that he now has to carry a much better line of goods than formerly or lose his business. Said he "I now sell thousands of dollars' worth of goods that I never thought this community would buy on account of the high first cost."

Get your service on a modern basis. Do "good" in teeth to people who have money, and in both teeth and money to those who are short on worldly goods.

Bill

"NOW BLOW—BLOW HARD"

In the rear of the nose just above the soft palate are the opening of the eustachian tubes leading to the middle ear. Hard blowing of the nose may force colonies of bacteria through one of these tubes into the middle ear, producing inflammation with resulting ear ache.

If not at once checked by opening the ear drum and disinfecting the ear, deafness may result, or the inflammation may extend into the spongy bone of the mastoid process. In the latter case, it is probable that a hole will need to be chiseled through the outer layer of the skull, the diseased bone excavated, and the cavity sterilized, or death may ensue. Many a mother has caused the death of her offspring by putting a handkerchief to his nose and saying, "Now blow. Blow hard!" Mastoid abscesses are serious afflictions, and by no means uncommon. One of my friends averages more than one mastoid operation a day through the year. Dr. Wm. L. Hooper, Tufts College.—*Healthy Home*.



PRACTICAL HINTS

[This department is in charge of Dr. V. C. Smedley, 604 California Bldg., Denver, Colo. To avoid unnecessary delay, Hints, Questions, and Answers should be sent direct to him.]*

A METHOD OF APPLYING ARSENICAL PASTE.—A safe way to apply arsenical paste in a cavity is to take an automatic amalgam carrier, place a small piece of cotton in barrel and place the arsenical paste on the cotton; it can then be applied without fear of falling on the mucous membrane.—GEORGE E. COX, D.D.S., Wilmington, Del.

1. THREE HINTS THAT I FIND PRACTICAL.—Buy a one quart Thermos bottle and have warm water at your chair for three days with one heating.

2. In large canals when pulp is difficult to remove, place two small broaches in holder at once and remove the pulp first time.

3. In using arsenic in deep interproximal cavities always have a piece of temporary stopping tight against gingival margin, then apply treatment and cement. This forces away any overhanging tissue from cavity and does away entirely with dangers of arsenical poisoning.—A. C. SLOAN, D.D.S., Baldwin, Wis.

TO KEEP WATER STERILE FOR HYPODERMIC WORK.—Sterile water for hypodermic work can be kept clean by using the glass dome of the "Nontoxo Sterilizer" to cover a ground glass stoppered bottle of four or six ounces, bottle to be used on a clean glass slab. Makes a fairly good joint to keep out "bugs."—M. V. BAKER, D.D.S., Marysville, Wash.

TO COMPENSATE FOR SHRINKAGE IN A LARGE GOLD INLAY.—Where a cast gold inlay is to be made for a cavity involving the mesial, occlusal and distal surfaces of a bicuspid or molar, if there is any shrinkage the inlay will invariably show a defective line at the gingival margins. To overcome this, the gingival margins of the cavity should be quite freely beveled so that the inlay will cover them with a lap joint instead of a butt joint. Even if there is a slight shrinkage the thin lap of gold can be burnished down to the cavity margin so that when cemented the inlay will perfectly seal the cavity.—I. D., *The Dental Review*.

*In order to make this department as live, entertaining and helpful as possible, questions and answers, as well as hints of a practical nature, are solicited.

TO PREVENT THUMB-SUCKING IN CHILDREN.—Dr. Geo. H. Henderson calls attention to a very ingenious method of preventing thumb-sucking suggested to him by Dr. Truman W. Brophy. Make a pasteboard cuff of the right size and length to slip on the arm, small enough not to slip off the hand. Sew cotton or other material on the edge to prevent it from irritating the hand. It can be bound with adhesive tape or straps and buckles. This will prevent any use of the elbow, and it is much more humane than the use of bitter drugs and other such expedients.—*The Dental Review*.

METHOD OF SEPARATING AND REGAINING SPACE WHERE TEETH HAVE BEEN LOST FOR SOMETIME.—Cases are often presented to us where it is desirable to reclaim the use of a root that has lost its crown. However, upon examination, we find that the crowns of the teeth adjoining the space have drifted out of normal contact with their neighbors to a point where it is not possible to place a crown of sufficient width and size. This condition may be obviated by using an old but effective method which is as follows: Place the end of an elm stick in a vise and compress until it can be slipped into the space to be separated, and sawed off short enough to avoid interfering with the articulation. In cases where a very short root is to be reclaimed, a piece of softened gutta percha may be placed over the root end to force the gum tissue away and the wedge inserted over it. Sufficient expansion of the wood will take place as soon as the saliva comes in contact with it, to produce a gradual and quite comfortable separation which will continue for several hours. It is well not to force this wedge in too tightly, since a too rapid separation will result with much discomfort to the patient. In most cases one wedge worn from twenty-four to forty-eight hours will provide the desired space, while in some cases two wedges may be necessary.

This method not only has the effect of producing a separation but has a far more important one, i.e., forcing the drifted adjoining teeth back into firm contact and tilting their occluding surfaces into correct alignment and articulation, thereby eliminating one of the fertile causes of pyorrhea pockets. There need be no fear of losing the space obtained, while the crown is being made and adapted, since the wedge may be removed and replaced as often as necessary. Hickory was formerly recommended for making these compressed wedges, but I have found that elm is better since it is a soft wood that will admit of considerable compression without splitting, and will take up moisture more rapidly.—LEWIS G. WATKINS, D.D.S., Detroit, Mich.

A TIME-SAVING HINT.—When treating, and in some cases, when filling, an upper tooth, excepting the second and third molars, a cloth

napkin can be secured with a clamp to a tooth distally located from the one to be operated upon, and by placing a cotton roll under the lip or cheek, as the case may be, all moisture is excluded from the field of operation for a sufficient length of time to enable you to render the service required. This method can be adopted in most cases, but of course some cases cannot be managed in this way, requiring the rubber dam. Anyone making use of the napkin as indicated above will save much valuable time, and cause less discomfort to the patient.—H. A. CROSS, D.D.S., Chicago, Ill.—*The Dental Review*.

EXTRACTING A POST FROM A FRAIL ROOT.—In extracting a post from a frail root with a post puller there is always danger of splitting the root. The likelihood of this happening may be reduced to the minimum by taking a piece of twenty-eight-gauge German silver plate, cut a hole through it large enough to pass over the post and trim into a disk about the size of the root face. This disk may then be placed on the root with post projecting through its centre. The post puller may then be placed in position and as it is tightened the part of the instrument which is intended to bear on the root rests against the metal disk and does not slip or spread and the post may be drawn with safety. If the face of the root is uneven from decay, a bit of base-plate gutta percha may be molded into the cavity, the disk pressed into place and chilled with cold water, giving an even base for the instrument to press against.—J. A. BULLARD, D.D.S., Chicago, Ill.—*The Dental Review*.

WATER AND TEETH.—As a general rule, water with high total solid residue, including a large amount of calcium salts, is not favorable to the health. The soundness of the teeth, however, is in direct proportion to the degree of hardness of the water used in the locality in question. The finest dentition was found in districts where the water contained magnesium as well as calcium salts. The former are stated to harden the enamel.—ROSE, *Giorn. farm. Chim.; Chem. Abstr.* (*British Journal of Dental Science*.)

RENDERING CORK STOPPERS IMPERMEABLE.—In order to render cork stoppers impermeable to alcohol and acids, they are dipped in a cold solution of rubber in chloroform, and allowed to dry in the air until the chloroform has evaporated. Another method consists in dipping the corks into very hot, though not boiling, paraffin for about five minutes, and allowing them to dry thoroughly.—*Journ. Dentaire Belge.* (*British Journal of Dental Science*.)

QUESTIONS AND ANSWERS

Question.—Some time ago I attempted to prepare and fill some cavities for a relative (a boy of 8 years). He was rather unruly and so I had his sister take him to another dentist, as I could see no way to prepare the cavities except by using the dental engine. The cavities to be filled were small pit and fissure cavities where an explorer would enter nicely.

When the boy returned I was informed by his sister that no engine was used and all four 1st molars were filled. Looks like a miracle to me. I felt a bit delicate about the matter and asked no questions. Can you suggest how such a stunt can be performed? Hope I have made a clear impression as to the class of cavity. No other instrument than an explorer would enter for me.—R. C. M.

ANSWER.—Very frequently occlusal cavities that barely receive the point of an explorer will have the enamel pretty well undermined by decayed dentine and in such cases the enamel can be quite easily broken down with small sharp chisels and firm hand pressure, when the softened dentine can be scooped out fairly well with spoon excavators; sufficiently at any rate, to hold a filling for a few months or a few years. In fact I think the main part of the opening up of all such cavities should be done without the use of the dental engine. But unless the engine be used to finish the operation, I think the preparation is apt to be quite incomplete, and it is more than likely that you will be called upon to refill those cavities at some future time.—V. C. S.

ANSWER.—Will you add to your advice to "H. B. W." in September issue. See to it that no iodine comes in contact with the tissues of oral cavity (and all cleansing fluids have iodine); after repeated cleansing he will see a marked improvement.—M. H. CAZIER, M.D., Chicago.

ANSWER.—In reply to the inquiry of "R. C. M." (page 646, October DIGEST), would say that if he will use a preparation that is sold under the name of Velvo Phenox his troubles with children's teeth will be over. I have used it very freely in all sensitive cavities for several years. It is harmless. Stop it in with cement for two days before operating.—D. W. BARKER, D.D.S., BROOKLYN, N. Y.

Question.—Referring to question signed "R. C., Wisconsin": It is not the policy of this magazine to publish any contribution not signed (for the publisher) with full name and address of sender.—V. C. S.

AN EPITOME OF CURRENT DENTAL AND MEDICAL LITERATURE

[*The Journal of the National Dental Association*, November, 1915]

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REPORT OF THE MINNESOTA DIVISION OF THE SCIENTIFIC FOUNDATION AND RESEARCH COMMISSION

Oral infection, whether in the form of apical abscesses or pyorrhea, is frequently the sole cause of arthritis and rheumatic affections of the muscles and nerves as well as joints, and seems, when present, to be always an associated cause where the rheumatism is of streptococcal origin. An arthritis once started by tonsillitis or similar large foci, can be kept going by an oral infection so slight as to be scarcely recognizable in the

radiograph, and systemic diseases are continued by surprisingly shallow gingivitis, even when the larger local foci, doubtless the originators of the trouble, are removed.

Our experience in private practice, as well as in the cases shown by the tables, has taught us that these rheumatic and arthritic conditions are markedly improved by removing the local foci.

Great emphasis should be laid on the complete extirpation of infected foci in all cases. It is not sufficient that the mouth or tonsils appear well from the outside. A minute examination with every means available is necessary. With the aid of the X-Ray and careful exploration it is still difficult to find all foci about the teeth. Without these aids it is impossible. When a physician refers a patient suffering from rheumatism or other of the diseases liable to come from dental infection, it is impossible for the dentist to make a complete determination without the use of the X-Ray. It is our experience and the experience of others who use the X-Ray a good deal that the majority of dental abscesses give no clinical sign of their existence. The teeth are not sore, no swelling or palpable soft spot at the root end reveals what the radiograph shows and what the subsequent operation confirms. It is not uncommon to find abscesses shown in the radiographs in cases in which there are no breaks in the continuity of the pulpal wall, as under crowns, fillings, or even sound teeth.

Experience with a radiograph also shows that a very large proportion of artificially filled roots subsequently become abscessed. A study made by Dr. Henry Ulrich of this city of a thousand radiographs taken at random indicated that over 70 per cent. of the artificially filled roots were abscessed. It has been very rare that we have extracted a tooth which showed an abscess in the radiograph and failed to get streptococci when we cultured from the root end.

It is amazing to find in well cared for mouths how much pyorrhea may exist without being evident except to painstaking exploration. To those familiar with the systemic results coming from pyorrhea in such large proportion of cases and even from a slight pyorrhea, the careless ignoring and overlooking of such trouble on the part of most dentists, seems nothing less than malpractice.

In all the cases which we have tested for bacteria, the streptococcus viridens has been found in pyorrhea pockets and apical abscesses. Since we have used the greatest precautions to prevent contamination from the gum margin by searing them, there would seem to be no question but that this organism is constantly present in such lesions. Whether it is the etiologic micro-organism in the oral lesion or not, it is present and there can be no doubt that it or its toxins pass thence into the circulation and cause arthritis and rheumatic conditions.

The use of vaccines, however, is liable to create a confidence in them which is likely to make the dentist less careful in eliminating all local foci, and until such local foci are removed it can hardly be expected that a vaccine will give any permanent relief. In most of the cases where we were sure that all local foci were removed, the recovery was sufficiently rapid and complete to indicate that vaccine was not needed.

The heart cases studied are mostly endocarditis as evidenced by valvular disease, usually insufficiency of the mitral valve. Most of these are connected with rheumatic trouble.

In our table of hospital patients, thirty-five cases had a diagnosis indicating endocarditis. Of these, twenty-three had or had had rheumatism, two had tuberculosis, nine were associated with nephritis, and three with neuritis. The association of endocarditis with rheumatic conditions is well known, this table merely serves to emphasize it. Of the thirty-one cases who had or had had rheumatism, twenty-three had endocarditis. All of these were wholly rheumatic cases, not complicated by tuberculosis or syphilis.

The known and apparent relation of these heart lesions to rheumatic conditions, the fact that all have dental infections, and the fact that so large a proportion of the cases studied—thirty-five out of sixty-six—have endocardial lesions, seems to us to be good clinical evidence of the relation of such lesions to local infective foci of the dental type.

The response to treatment by foci removal in these cases is slow, but in the great majority of cases is marked. These lesions are much like the bony deformities of arthritis, in that although the disease may be cured the scars remain and a heart valve once injured by inflammation is always there after leaky and insufficient. The best that can be done is to stop the progress of the disease and allow the heart to compensate. Careful rest and slow building are necessary and quick results cannot be expected.

The cases which have yielded us the most satisfactory results during the last year have been those diagnosed as gastric ulcer.

[*The Dental Register*, November, 1915]

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[*The Dental Cosmos*, December, 1915]

Original Communications

A Rational Appliance for the Correction of Palatal Defects, Based on Original Studies of the Action of the Muscles of the Soft Palate. By W. H. O. McGehee, D.D.S., M. D.
Modern Attachments for Bridge Work and Stabilizers for Loose Teeth. By Jas. K. Burgess, D.D.S.

*Oral Infections. By Nathaniel Gildersleeve, M.D.

*A System of Making Jacket Porcelain Crowns Without Fusing. By L. E. Custer, A.M., D.D.S.

The Relation of Dentistry to Neurology. By Christopher C. Beling, M. D.

President's Address (Pennsylvania State Dental Society). By James G. Lane, D.D.S.

President's Address (New Jersey State Dental Society). By Walter F. Barry, D.D.S.

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Advance Notice of the Use of the Fluid Extracts of Umckaloabo and Chijitse in the Treatment of Pyorrhea Alveolaris.

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ORAL INFECTIONS

BY NATHANIEL GILDERSLEEVE, M. D., PHILADELPHIA, PA.

(Read before the Pennsylvania State Dental Society, at its annual meeting, Reading, June 22, 1915)

CAUSES FOR LACK OF PRESENT KNOWLEDGE OF MANY ORAL INFECTIONS

This lack of knowledge, it might be stated, is due primarily to four causes:

(1) Lack of interest exhibited by physicians in local diseases of the oral cavity.

(2) Lack of scientific education in a large proportion of dentists, owing to which fact they have been handicapped in recognizing and properly differentiating various infectious conditions of the mouth. Those who have qualified are in many respects self-educated, it being but

fair to state that the dental practitioner cannot be blamed so much as the dental schools, since sufficient emphasis has not been laid on this very important branch of oral medicine and surgery. This unfortunate condition of affairs is being corrected at the present time, and when the four years' course is instituted in the various dental colleges, the student will have better training in this as well as all other branches making up the curriculum of our dental colleges.

(3) There has always existed an inexcusable lack of coöperation on the part of medical and dental practitioners. The professional relationships of these two bodies of men dealing with diseases of the human economy are yearly becoming closer, each group recognizing more and more fully the fact that they cannot work to the best advantage of their patients without this essential coöperation.

(4) The fourth factor of importance is one which can only be overcome by constant investigation, namely, there are numerous organisms constantly existing in the oral cavity the true significance of which have not been determined, owing to the fact that endeavors aimed toward the isolation of some of these microscopic plants and animals have not as yet been attended with success; furthermore, the importance of some which have been isolated has undoubtedly not been fully recognized, due partially to the haphazard way in which they have been handled by many workers, and partially to the fact that some of the diseased conditions cannot be reproduced in lower animals.

A RATIONAL APPLIANCE FOR THE CORRECTION OF PALATAL DEFECTS,
BASED ON ORIGINAL STUDIES OF THE ACTION OF THE MUSCLES
OF THE SOFT PALATE

By W. H. O. McGehee, D.D.S., M.D., CINCINNATI, OHIO

REQUIREMENTS OF A SUCCESSFUL OBTURATOR

It is now readily seen that a successful obturator should be capable, not only of upward and downward movements, but, in order that it may remain in perfect adaptation to the boundaries of the cleft under all circumstances, should really possess six distinct movements, that is to say, vertical (upward and downward), antero-posterior (forward and backward), and lateral (right and left). The appliance described is designed with this idea in view, and is presented to the profession after adequate and successful trial in many clinical cases.

THE NEW CLEFT PALATE APPLIANCE, AND A NEW TECHNIQUE
FOR MAKING IT

The appliance suggested consists of a metal or vulcanite plate with

clasps, vulcanized or soldered into the heel of which is a clasp-metal extension, on which rests the hard-rubber obturator. From the centre of the metal extension projects upward through the obturator a screw-cut gold post with a nut on its end. Vulcanized into the hollow portion of the obturator is a flexible clasp metal tongue, through which the upright screw post previously mentioned passes and in contact with which it is held by means of the nut on its end. On the under surface of this metal tongue is a small gold hook, to which is attached one end of a spiral spring, the other end hooking around the upright screw-cut post. Another spiral spring extends from a similar hook, vulcanized into the posterior part of the upper hollow portion of the obturator, to the same upright post.

A SYSTEM OF MAKING JACKET PORCELAIN CROWNS WITHOUT FUSING

By L. E. CUSTER, A.M., D.D.S., DAYTON, OHIO

ADVANTAGES OF THE PORCELAIN JACKET CROWN

The jacket crown possesses certain features which easily place it at the head of all other forms of porcelain crowns. First, the strength and durability of this crown is testified to by every dentist who has made one. Dr. W. A. Capon of Philadelphia says, "After many years of experience with different kinds of porcelain jacket crowns, I am glad that I was fortunate enough to recognize their efficiency early in my practice. When a root has been crowned to death and considered only fit for extraction, a jacket crown will give it renewed life and vigor in the majority of cases, if it is decently firm in its socket."

Dr. Edward B. Spalding of Detroit says, "The all-porcelain jacket crown and its modifications have displaced all other forms of porcelain crowns in my practice. The gum tissue is always more healthy about a carefully fitted and flush joint than where a band is used."

Dr. George Schneider of Chicago says, "There are two vital points in favor of the jacket crown, namely, first it is not necessary to remove the natural crown in whole; second, you do not endanger the root by enlarging the canal for the retention of a post."

Dr. H. E. Jenkins of Ironton, Ohio, whom I have seen repeatedly drive a canine jacket crown of his own make through an inch pine board without damage to the crown, maintains and proves that it possesses strength above any other form of porcelain crown.

The strength of the jacket crown is due largely to the natural post of dentin within it, which is a part of the tooth itself. Where caries has left but little dentin, this is reinforced by a platino-iridium post occupying

approximately the pulpal space of the tooth. We have never seen or heard of a root split under a jacket crown. This cannot be said of any other form of porcelain crown.

A second advantage of the jacket crown, as pointed out by Dr. Spalding, is that it makes a flush joint with the root at the cervix. A metal band with its uncertain fit is thus done away with.

The third advantage is the esthetic appearance of the completed crown. The entire crown itself performs the functions of a band, thus eliminating the unsightly metal band at the gum line.

The disadvantages of the jacket crown lie entirely in the technique of its construction. The operator must be skilled in the working of porcelain, and I know of no procedure in dentistry that requires so high a degree of skill and patience as the making of a porcelain jacket crown. The platinum coping requires skill and time in its formation, the selection and fusing of the proper shade of porcelain requires years of experience, and then often at the last minute the esthetic appearance of the whole appliance may be spoiled by overfusing. Another objection is the amount of time consumed in the baking method.

It is a system or procedure in which the objections just enumerated are overcome that I herewith present, and since I am the inventor of the first electric oven, it may seem strange that I advocate a method which does not require an oven, nor does it require any special instruments. It will also be noticed that many steps of the technique are old and more or less familiar to everyone.

[Items of Interest, December, 1915]

Exclusive Contributions

Is Tartar a Cause of Pyorrhea Alveolaris? The Logical Test Applied. By G. F. Logan, D.D.S.

Note on Standing Amœba in Dry Smears, from Cases of Pyorrhea. By Thomas LeClear.

Prosthodontia

"The Application of the Chayes Parallelometer, the Parallelodrill and Attachments in the Conservation of the Common Reciprocal Functions of the Teeth Which are Used as Piers for Bridgework." By Herman E. S. Chayes, D.D.S.

Orthodontia

Some Principles of Retention. By Martin Dewey, M.D., D.D.S.
Discussion of Dr. Dewey's Paper.

Society Papers

*Blood Findings in 162 Consecutive Cases of Chronic Oral Infection Associated with Teeth.
By Wm. H. G. Logan.

*Oral Sepsis as Related to Systemic Disease. By W. H. Strietmann, M.D.
Operative Procedures in Relation to Dental Caries and Diseases of the Investing Tissues.
By Arthur D. Black, A.M., D.M., D.D.S.

BLOOD FINDINGS IN 162 CONSECUTIVE CASES OF CHRONIC ORAL INFECTION
ASSOCIATED WITH TEETH

By WM. H. G. LOGAN

(Read before the Panama-Pacific Dental Congress, San Francisco, California, Section VI,
September 1, 1915)

In the examinations made in 100 out of 162 cases blood changes had occurred that were held to be the sequence of chronic oral infections associated with teeth.

ANEMIA

That neither pronounced nor moderate anemia was commonly associated with chronic oral infections in this series, as claimed by many authors; however pronounced anemia was found once.

LEUCOPENIA

That leucopenia was more constant than leucocytosis in pyorrhea cases where the blood findings were abnormal; furthermore, leucopenia was more frequent in those cases where the pyorrhea pockets did not involve the root ends and in the absence of periapical focal infection without discharging sinuses.

LEUCOCYTOSIS

That leucocytosis when associated with pyorrhea cases was most frequent where the pyorrhea pockets extended nearly to or did involve the root ends.

That abnormal blood findings were present in forty-eight of the one hundred and ten pyorrhea cases examined. Full urinalysis was made of all pyorrhea cases although not here reported.

That leucocytosis was present in forty-seven of the fifty-two cases of periapical infections without discharging sinuses—but that leucopenia does occur under the same conditions is presented in Group 6. Let the foregoing statement be not misconstrued to mean that either leucocytosis or leucopenia is always present when a chronic periapical infection without a discharging sinus is found, for periods arise when the effect of the infective biproducts is so slight that its result is not manifested in a blood change. But, since severe secondary infections could occur during this period, a focal infection although producing no characteristic blood

change must always be looked upon as a menace to the health of the patient and its eradication demanded.

PERIAPICAL INFECTIONS

One may have a pulpless tooth present without a rarefied periapical area and at the same time have a chronic infective process in the remnants of pulp tissue, which I have found in three cases to be accountable for a serious secondary effect.

Nor can one with any degree of assurance eradicate periapical infections by the mere extraction of teeth unless it be accompanied by a curettement. Therefore it becomes necessary to do something more than to extract teeth or amputate roots and do an indifferent curettement to secure positive elimination of focal infections associated with teeth.

ORAL SEPSIS AS RELATED TO SYSTEMIC DISEASE

W. H. STRIETMANN, M.D., OAKLAND, CALIFORNIA

(Read before the Panama-Pacific Dental Congress, Section II, September 7, 1915.)

ETIOLOGY OF ROOT ABSCESES

Let us consider on the other hand the etiology of root abscesses. Here I would have you consider earnestly the causative factors spoken of by Martin H. Fischer. He calls attention to the fact primarily that teeth are living structures. All of us know that living tissue of any kind is infinitely more resistant to infection than dead tissue. Hence any procedure which would tend to interfere with the vitality of the tooth or its surrounding structures must of necessity lower resistance to infection and predispose to local disease. Under this heading we must place the use of arsenic and strong antiseptics such as phenol tricesol, etc. These substances destroy bacteria no doubt, but they destroy living tissue as well.

Then comes the process known as devitalizing a tooth. The popular conception is that this process removes the nerve from the pulp canal. but as Fischer has pointed out, it also removes the nutrient artery from the centre of a tooth, which naturally results in the death of the tooth centrally, again producing a favorable ground for the growth of bacteria. With the central canal deprived of its blood supply the pericementum alone is left to nourish the tooth, a thing which at best could be but very imperfectly done, but with an existing pyorrhœa or the further dental operation of placing a crown which necessitates the grinding away of the convex sides of projecting portions of the teeth, thus destroying many living cells again, it becomes an impossibility. Further the snugly fitting crown causes a pressure necrosis of the underlying cells. Infection in-

variably occurs around such crowns and the primary focus of possible subsequent systemic disease is planted.

The foregoing is not intended in any way to reflect upon the technique of the dentist, the sterilization of hands and instruments, etc., for I am firmly convinced that this precaution is becoming general among them. Likewise devitalizing may be necessary for certain dental procedures now in use, but I trust the inexhaustible ingenuity of the dental profession will soon find a way to do without this method of treatment and indeed, it is well known that dentists abhor the full gold crown as much as the physicians, but find themselves compelled to use it in order to "save a tooth."

[*The International Journal of Orthodontia*, November, 1915]

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The Etiology and Treatment of Some Types of Deflected Nasal Septum. By Martin Dewey, D.D.S., M.D., Kansas City, Mo.

The History of Orthodontia (Continued). By Bernhard W. Weinberger, D.D.S., New York City.

Treatment of A Class II, Division 1 Case. By W. G. Barr, D.D.S., Wichita, Kas.

A Case History from Practice. By Hugh G. Tanzey D.D.S., Kansas City, Mo.

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Some Infections of the Head and Their Causes. By J. Sheldon Clark, M.D., Freeport, Ill.

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Dr. Stanton's Instrument for Surveying the Dental Arch.

Some Disputed Points in Orthodontic Treatment.

Dental and Medical Newspaper and Magazine Advertising.

[*The Western Dental Journal*, November, 1915]

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Résumé of the Conductive Anesthesia Clinic. By Dr. Hinman.

Ethics and Good Taste. By Dr. C. C. Allen.

[*Dominion Dental Journal*, November, 1915]

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President's Address—New Brunswick Dental Association. By W. P. Bonnell, D.D.S., L.D.S.

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The late Dr. Chas. W. Brown.

The late Dr. W. T. Stuart.

DESENSITIZING DENTINE WITH PARAFORM

Equal parts of paraform and cocaine crystals were moistened to a paste with oil of cloves and applied to an almost exposed pulp of a first permanent molar of a child ten years old. The pulp had to be devitalized, so it was first used to try the effect of cocaine and paraform on it. The paste was sealed into the cavity with cement for about a week. There was neither pain nor soreness during that time. When the dressing was removed the decalcified dentine which had been exceedingly sensitive was readily excavated without pain, and the horns of the pulp cut with freedom, though the tissue was quite sensitive below. The same application was made in many deep cavities in which there was no pulp exposure; in very few of these was there the slightest discomfort, and in most cases happy results on the dentine. In shallow cavities there is less need of the cocaine and greater difficulty in sealing, so less cocaine may be used and more paraform. The proportion of cocaine and paraform is governed

by the state of the sensitiveness of the pulp and the nearness to it. The length of time to leave the application is governed by the amount brought into actual contact with vital dentine. In shallow cavities equal parts of the cement powder and paraform may be mixed with the liquid and inserted, but if the pulp has been irritated for any reason much less paraform must be used. If a small amount of the paraform is brought in contact with the tooth's surface, then leave it even weeks, but on the other hand if a large percentage has been brought in contact then days may suffice. It is wise to remove whatever decay possible before applying, but if success does not come with one application and there has been no irritation increase the percentage in another application. The penetration of the drug is not very deep, one or two millimeters is the limit, and it does not spread laterally more than the anastomosis of the tubules. If it is applied to one surface of a tooth it won't desensitize the opposite surface.

If the profession will carefully test out the value of paraform as a means of desensitizing dentine and report the results it will not be long until its true place will be known to all. An ounce bottle of paraform costs about thirty cents. It is a yellowish-white crystalline powder, with a peculiar odor. Try it.

[*The Dental Outlook*, December, 1915]

Original Communications

- *Treatment and Filling of Root Canals. By Dr. R. Ottolengui.
- Balanced Alloys. By N. K. Garhart.
- Dentistry and System. By S. Herder, D.D.S.
- "Sweatshop Dentists." By Dr. M. Schneer.
- The Dental Student and the Profession. By Morris Zucker.
- Gateways of Infection.
- A Mother's Thought on the War. By Bert Ullad.
- Our Good Friend, the Dentist. By Arthur Brooks Baker.
- Monthly Report of Legislation Committee of the Allied Dental Council.
- Hold Man and Woman Practicing Without Licenses.

TREATMENT AND FILLING OF ROOT CANALS

BY R. OTTOLENGUI, NEW YORK

The Alternative for the Surgical Treatment of Root Ends is Ionisation

The action of the electric current in an electrolyte is to split it up chemically into simpler materials which move to their respective electrodes. These materials are called ions. The ion is the conveyor of electricity; hence the ion which travels to the anode is called the anion, and the ion which goes to the cathode is called the cation. The use of

medicaments by ionization has been much more studied abroad than by American dentists. Clinical results are sufficiently satisfactory to make it highly probable that in the ionization of tissues through the canals of teeth we have a very promising method of controlling even serious infectious conditions.

Abroad the method employed mainly is to use a platinum point as the anode, and to flood the canal with chloride of zinc. The method advocated by Rhein and others in this country, and thus far the only method tested by myself, is to use an anode of pure zinc and to flood the canal with normal salt solution. When a current is passed through an electrolyte containing a salt in solution the metals, or metallic radicals move from the anode to the cathode; thus by using the zinc point as the anode, the ions pass from the zinc through the apical foramen and act upon the tissues about and beyond the apex.

Tests out of the mouth easily demonstrate that the result, say upon a bit of beef, is much the same as where chloride of zinc is used; markedly escharotic. In twenty minutes a cubic quarter inch of fresh beef may thus be so disintegrated by ionization that it can be easily macerated between the thumb and the forefinger. Hence if a true granuloma be present in the apical space, caused by septic infection, this granuloma may thus be destroyed, and the theory is that it is then absorbed and slowly replaced by normal tissue.

It is also claimed that ionization with the zinc used in combination with normal salt, will sterilize dentine and cementum, as well as the tissues about and beyond the apical foramen.

[*The Texas Dental Journal*, November, 1915]

Original Communications

Some Practical Points.

Thirty-first Annual Convention of the Texas State Dental Association.

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[*The Pacific Dental Gazette*, November, 1915]

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By Gilmer.

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Mercurial Stomatitis.

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Reminiscences by Dr. Asay.

[*Oral Health*, November, 1915]

Photograph, Major A. A. Smith, Acting Chief Dental Surgeon, C.A.D.C.

*The Progress of the Research Commission of the National Dental Association. By Weston
A. Price, D.D.S., M.S., Cleveland.

Six Years of X-Ray in Dentistry. By Stephen Palmer, D.D.S., Poughkeepsie.

Quarterly Report, Canadian Army Dental Corps.

Society Announcements.

Summary of Dental Laws of Canadian Provinces.

The Compendium.

The Active Service Roll.

Multum in Parvo.

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THE PROGRESS OF THE RESEARCH COMMISSION OF THE NATIONAL DENTAL
ASSOCIATION

BY WESTON A. PRICE, D.D.S., M.S., CLEVELAND, OHIO

The research department is giving support to the solving of metal-lurgical problems, and I think I am justified in telling you that one third of the platinum used in the world is used in the practice and art of dentistry, and do you realize that for the dental profession it amounts to \$2,500,000 annually? If we would utilize the opportunity and the information we have on the tungsten product which has been developed through our Research Commission, it would result in great benefit and good to the dental profession. This metal is six times as strong as iridio-platinum; it has a melting point nearly twice as high as that of platinum; its elasticity is twice as great as that of steel. It has a hardness so much

greater than that of steel that the management of the General Electric Company is responsible for the statement that one tungsten point will outwear two hundred steel points. It is a metal that does not lose its elasticity when you heat it. This metal is available for any man in this room for use in making posts for crowns and for casting bridges upon. It is so stiff and rigid that you can make a framework of it and cast about it and control the contraction that will take place in casting a bridge with its abutments, all at the same time. You may use it for orthodontia appliances either by the method which has been presented by Dr. Robinson or by the standard methods.

Relative to the application of the metal in orthodontia appliances, I am advised that it is destined to supplant largely the metals that are in use up to this time for orthodontic work. With its greater elasticity, you can make attachments to it with hard gold solder. It has the property of enormous strength; it does not break off like clasp metal wires by crystallization. You may use wire that is so much smaller that it seems incredible for it to accomplish the work it does.

Any dentist who will write to the commission can get the metal. We are furnishing it to the profession at what it costs us to produce it, and ultimately the manufacturers will make it. The selling price is virtually one sixth of that of platinum for the same weight.

In the last two or three months our research department has been able to furnish the profession enough tungsten to supplant the use of platinum to go far toward paying for the research expense that the commission has gone to for that particular line of research work. (Applause.)

There are only a few who know about it, because you have not read the recent issues of the *Journal of the National Dental Association* with reference to the research work we have been doing in regard to this metal.

As to palladium, it requires no special preparation. Any man can send to the American Platinum Works, New Jersey, and buy palladium for \$48 an ounce. You can get twice the bulk for the same weight that you can with platinum. You can make it equivalent to platinum at \$26 an ounce.

[*British Dental Journal*, November 1, 1915]

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A Review of Recent Researches concerning the Nature of Dental Caries. By W. H. Jones (Downing College, Cambridge), B. A. Cantab., L.D.S., Eng.

*Presidential Inaugural Address.

Selected Article

"Diagnosis of Ulcers of the Tongue." By E. C. Hughes, M.C., F.R.C.S.

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*Annual Report of Chief Medical Officer, Board of Education, for 1914.

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Exhibition or Fracture Apparatus at the Royal Society of Medicine.
A Prophylactic Interdental Splint.
Professor Dr. Dependorf killed.
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PRESIDENTIAL INAUGURAL ADDRESS*

BY REGINALD E. BASCOMBE, L.D.S., ENG.

Each day we notice the slow but sure progress that is being made, and this war has already done more than the last decade of peace to teach a great national lesson—that "the care of the teeth" is the very hypothesis upon which health, strength, the power to endure, the length of life itself wholly and entirely depend. So, out of evil comes good; the powers that be have discovered in a time of stress that this war will be a true case of survival of the fittest, that half the troubles of the soldier are due to want of knowledge, that the care of the teeth comes before all else; and so with feverish haste nearly three millions of men are being put under the skilful treatment of the specialist. Here let me remark in parenthesis that it is the duty of every qualified practitioner, while doing his utmost for the men who go forth to save our homes, at the same time to teach each man with care and patience the necessity for constant cleanliness and annual supervision at the hands of the qualified dentist.

These common soldiers are for the most part splendid men with

*Delivered before the Eastern counties Branch at Bury St. Edmund's on September 24, 1915.

hearts of gold, and I have been overwhelmed by the tokens of gratitude which I have received at their hands. So many men have spoken of their gratitude to the Government which has enabled their eyes to be opened, and oft I have heard it said, "If only my parents had taught me to clean my teeth! I thought, indeed, that dentists were only to remove teeth when at last they became unbearable by reason of the pain they gave!" So here is a boon to mankind; the hour of peril has caused the slow-gearred cogs of evolution to leap forward half a century. These men will never forget, and they will see that their children profit by the lessons which they are being taught to-day. Mr. Bailey is a man who gave his all freely to help in the great fight to enable our profession to take that high position which it has earned for itself by self-sacrificing endeavor. He deserves our gratitude for his honest convictions as to the necessity of systematic dental treatment for the poor. The fervor for the cause he has inspired by his efforts is echoed in the clinics we see springing up around us.

ANNUAL REPORT OF CHIEF MEDICAL OFFICER, BOARD OF EDUCATION
FOR 1914

In regard to the Dental Treatment Scheme, 130 areas are now sanctioned, as compared with 88 in the preceding year, and that no fewer than 195 organized dental clinics now exist, as compared with 150 in the preceding year. The number of dentists employed was approximately 200, of whom but 51 were full-time officers. The report calculates that the provision is sufficient to undertake the treatment of 375,000 children. In London alone upward of 42,000 children are now provided for annually, an increase of nearly 11,000 as compared with the preceding year, and this in spite of war difficulties.

Over and above the ordinary stationary dental clinics, "traveling clinics" have been instituted in Devon, Norfolk, and the West Riding of Yorkshire; in Norfolk the dental work is actually carried out in a dental caravan, though to our disappointment little is said as to whether this plan is a success or not. In Devonshire and the West Riding of Yorkshire the dental equipment is carried from place to place.

[*British Dental Journal*, November 15, 1915]

Original Communications

A Review of Recent Researches concerning the Nature of Dental Caries. By W. H. Jones
(Downing College, Cambridge), B. A. Cantab., L.D.S., Eng.

Surgical Prosthesis of the Jaws. By H. Watson Turner, M.R.C.S., L.R.C.P., L.D.S.

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The Case of Dental Students.

The Position of Dentists at War Hospitals.

Dentistry for the Troops at Doncaster.

Dentists' War Relief Fund.

RUSSIAN WOMEN DENTISTS

In view of our growing interest in Russian affairs, a note on dental conditions in that great Empire may be opportune. In Russia dentistry is regarded as one of the best professions for women, who are estimated to constitute 90 per cent. of dental practitioners. The chief school is the Dental College at Petrograd, which has 600 students, less than 5 per cent. of whom are men. There are also large dental colleges at Moscow, Odessa, Kiev, and Warsaw. Before entering upon the three years' dental course the student is required to have matriculated. The fees amount to £20 per year and the State diploma costs £2, a license to practise being only granted on proof of qualification. The first year's studies are devoted to mechanical dentistry; in subsequent years the student does clinical work from 10 to 5, and lectures follow until 9 P.M. Examinations are held every month. The lecturers at Petrograd number about twelve and come from the Imperial University Faculty of Medicine, while the ten demonstrators are chiefly women. For both medicine and dentistry fees in Russia are considerably lower than in this country, and hours of work are also longer. Men seem to prefer to enter the medical profession, and it is said that even in the capital city of Petrograd the men dentists of standing do not number more than half-a-dozen.

[*New York Medical Journal*, November 27, 1915]

REMEDIALE DEFECTS IN SCHOOL CHILDREN

Supplement No. 25 to the *Public Health Reports* for July 30, 1915, consists of a study of school hygiene in Manatee County, Fla., by Surgeon J. A. Nydegger. After describing the country, the school buildings, their environment, drainage, outhouses, drinking and lighting facilities, ventilation, etc., the writer takes up the health of the children. Apart from trachoma, the treatment of which requires great care and patience, together with the personal attention of the surgeon, the principal troubles found were adenoids, enlarged tonsils, defective teeth, and hookworm. The writer points out that the special object of his survey was to investigate communicable disease, but that other conditions were also studied, including ground itch, deformities of the back and limbs, defective vision and hearing, poor physique, dullness and backwardness, etc.

In the 1,684 school children examined, says Surgeon Nydegger in his report, 426 or 26.03 per cent., had defective teeth, ranging from a single tooth to three or four or more. A condition of the teeth noted to exist in the children of several schools, but mostly in the town schools, was the loss of the enamel from a portion of the surface of one tooth or several teeth in one individual. In some cases the enamel was noticed to have disappeared from the entire biting surfaces, while in others it was destroyed elsewhere. It is believed that this condition results from the prolonged action of acids on the teeth, such as would be brought about largely by the consumption of oranges and grape fruit, extending over a long period. The good result of dental inspection of school children was well exhibited in the Sarasota schools, where it was instituted during the present year. In the 279 children examined at the time of the visit but one case of defective teeth was discovered. This is in decided contrast with the findings at the Palmetto schools, which showed 22 per cent. of the children to be suffering from defective teeth. It would have been interesting to have had a special note on the teeth of colored children.

Two hundred and seventy-four children, or 16.2 per cent., had enlarged tonsils, while 164 children, or 9 per cent., had adenoids. There was a noticeable difference in the proportion of enlarged tonsils observed in school children in towns from those in the rural schools, in favor of the latter. The children examined in the colored schools, numbering 243, were noted to be particularly exempt from enlarged tonsils and adenoids. Two hundred and thirty-three children, or 13.24 per cent. of the total number examined, had adenoids. The figures show a preponderance of 5.6 per cent. more cases in the town schools than in the county schools.

In 243 children examined in the two colored schools there were 13 cases, or 5.3 per cent.

We have found this report on adenoids, enlarged tonsils, and defective teeth of special interest because these conditions would never be met with by a medical inspector if the general intelligence of the community was what it should be. It seems to us that the dentists and physicians in various parts of the country should organize some sort of an educational campaign, having for its object the bringing of the children for inspection every six months or so. Oral and pharyngeal lesions have a direct bearing on the nutrition and growth of the child and the treatment should really be prophylactic only and begin at the time of weaning. Surgeon Nydegger's best impressions of his survey, however, were conveyed by the joyous, laughing, romping assemblages of happy school children encountered at each school visited, which of itself was proof sufficient of generally well nourished and vigorous bodies. It was a real treat, he says, to mingle with these alert and vivacious young Americans, so intent on catching each word spoken to them.

ACADEMIC FREEDOM

In his annual report to the trustees of Columbia University, President Nicholas Murray Butler tells of numerous criticisms of public utterances of members of the faculty which have reached him from outside the university. These criticisms are, as a rule, based on incorrect or garbled reports of what the professor really said, or indicate a desire on the part of the critic to use the university as a medium for some particular propaganda. The critic usually demands the instant removal of the offending faculty member from the roll of the university.

In commenting on this regrettable attitude, Professor Butler wisely says: "The last thing that many persons want is freedom of speech or of anything else unless its exercise happens to accord with their somewhat violent and passionate predilections."

There is a tendency in medicine toward the same kind of criticism as that complained of by President Butler, and in medical publications we must carefully conserve freedom of speech and of views if we expect to make progress. We must, above all else, avoid the suppression of truth through the exercise of the "somewhat violent and passionate predilections" of those who would limit the freedom of speech in medicine within the compass of their own narrow knowledge and sympathies.

[*Journal American Medical Association*, November 13, 1915]

THE LOCALIZATION OF STREPTOCOCCI

The relation to infection of the affinity of bacteria for certain tissues

was discussed recently in these columns.¹ It was pointed out that many of the pathogenic bacteria in their localization manifest a special affinity for some particular tissue or tissues. This elective localization may be conceived to be due to the circumstance that the conditions for growth are more favorable in some tissues than in others. On account of differences in metabolism and chemical composition, there is no doubt that different tissues and places in the body present radically different conditions for bacterial growth and activity. It was pointed out, further, that the work of Forssner and especially the more recent work of Rosenow have established that among the streptococci, which have the power to invade many tissues and to cause a variety of infections, strains may appear which, when introduced into the blood, are found to localize by preference in certain tissues. In his article in this issue of *The Journal*, Rosenow² presents a summary of the results of his experiments of elective localization of streptococci obtained from a wide range of human infections and injected intravenously into dogs and rabbits. The animals were killed soon after the injection, and the facts as to localization of the streptococci determined by systematic, careful examination of the whole body. Obviously this method gives a much better idea of early localization than can be obtained if only the animals that die are examined.

Stated in the simplest way, the results obtained by Rosenow with his method show (1) that streptococci isolated from active lesions in different human organs and tissues, in many instances, have a pronounced affinity for the corresponding organs and tissues in rabbits and dogs, and (2) that streptococci isolated from the tonsils and pyorrheal pockets in persons with active streptococcal infection in the interior of the body may have the same sort of affinities as the streptococci from the internal lesions. In the light of these results, many of which are striking indeed, as may be seen at a glance from the table in Rosenow's article, human streptococcus infections acquire new interest because a road now opens to a better understanding of their genesis and of the difficulties of curing them by the specific means now in use. Obviously a chief danger from chronic foci in which streptococci are present, of which those in the tonsils and about the teeth appear to be the most important because the most common, seems to depend on the fact that in such foci, even when quiescent, streptococci may get into biochemical conditions which fit them for invasion of the blood, to be followed by localization in some tissues rather than in others. Persons going about with chronic, more or less latent

¹The Relation of Selective Tissue Affinity to Infection, editorial, *The Journal A. M. A.*, Sept. 26, 1915, p. 1114.

²Rosenow, E. C.: Elective Localization of Streptococci, *The Journal A. M. A.*, this issue, p. 1687.

foci of this character, consequently, are not only dangerous to themselves in that what one may call internal streptococcal metastasis may occur at any time, but they are also undoubtedly dangerous to others because they scatter about them streptococci of specialized pathogenic possibilities. Hence the efforts now made to detect and then to obliterate all forms of focal infection in the mouth and throat as well as elsewhere in the body, for preventive as well as curative purposes, besides being in accord with sound reasoning from general principles, here receive the support also of strong experimental evidence. When we consider the wide range of action of pathogenic streptococci, the great variety of disease due to their localizations in different tissues according to what Rosenow's work indicates are states of special "elective affinities," no effort should be spared that in any way will tend to reduce the supply of such streptococci and lessen the chance of infection.

PYORRHEA DUE TO ORGANISMS OTHER THAN THE AMEBAS

BY GEORGE HOWARD HOXIE, A.M., M.D., KANSAS CITY, MO.

Since the publication of the work of Bass and Johns on pyorrhea, there has seemed to be a tendency among dentists and many medical men to administer emetin in all cases of dental infections without establishing the presence of the endameba. That the endameba is not the cause of all cases diagnosed as pyorrhea by competent dentists is shown by this following summary of a case treated by this author.

We have to do with a recurrent fever of about seventeen days' duration. The focus has been the alveolar processes and the mucosa of the mouth, from which the body has been invaded. The particular parts, aside from the mouth, which have shown evidences of infection, have been the left knee (bursitis) and the anal fold (abscesses). The length of the attacks has varied from three to ten days. The organisms most constantly found have been a diplo-streptococcus and a mold. The disease has proved resistant to arsenic (salvarsan, arsacetin and the tri-oxid), the salicylates and other systemic and local germicides, as well as to vaccines, both autogenous and stock, single, as well as mixed.

The question of great interest is whether we have to do with an organism showing a cycle of from fourteen to seventeen days, or whether it is a case of temporary immunity. Repeated examinations have failed to reveal any amebas. Animal inoculation was negative.

To me it would appear that the causative organism is one which is ordinarily nonpathogenic, but which has acquired parasitic power in the tissues of this patient.

It is perhaps needless to say that all the conventional drugs have been used at one time or another by the various physicians who have treated

the patient. The dentists employed have been the best in the city. The case was worked up from the dermatologic standpoint by Dr. R. L. Sutton, and published under the caption "Periadenitis Mucosa Necrotica Recurrens." The diagnosis of pyorrhea was given by all the dental attendants, including Dr. Frederick Hecker, the author of a monograph on that subject.

1334 RIALTO BUILDING.

[*Deutsches Archiv. für Klinische Medizin, Leipzig, July 20*]

MECHANISM OF INJURY FROM GETTING CHILLED

Aufrecht presents an imposing array of testimony culled from old and modern writers to reaffirm the important part played by getting chilled in the genesis of various diseases and morbid processes. He then reports various experiments on rabbits, all of which confirms his assumption that the chilling causes coagulation of fibrin in the blood stream in the part chilled. The cause of the coagulation is the injury done to the white corpuscles by the cold. The coagulation obstructs the flow through the peripheral vessels involved and the blood is liable to back up into the liver, kidneys, and gastric mucosa. The most striking changes were found in the lungs, the coagulation of fibrin entailing microscopic hemorrhage into the interstitial tissue. This occurred in a pronounced form when the hind part of the rabbit was thrice dipped into ice water for ten minutes. The blood chilled in this way passes in the directest way to the arterial circulation in the lungs. The obstruction of vessels by the coagulated fibrin after chilling may be transitory and harmless, but, on the other hand, it may provide a culture medium for germs and explain pneumonia developing after exposure to cold. The hyperemia in the internal organs may also coöperate in the disturbances following chilling.

[*Journal American Medical Association, November 20, 1915*]

[*Berliner Klinische Wochenschrift, October 11*]

CANCER OF THE MOUTH AND RADIUM TREATMENT

Sticker reports fifteen cases in most of which malignant disease of the mouth retrogressed under radium treatment without scars or mutilation. The list includes some cases of recurrence after operations. He declares further that radiotherapy is preferable to surgical treatment in many cases for technical reasons and also from the standpoint of immunity. This statement is based on experimental research which demonstrated that it is possible to induce an implantation tumor on laboratory

animals in various different organs and points, inoculated all at the same time, but that, after having been once successfully inoculated, it is impossible to induce further growths by later implantation of tumor cells at any point. After complete excision of the implantation tumor, however, a new implant "takes" at any and every point inoculated all at the same time. On the other hand, if the implantation tumor was only partly excised and it continued to grow, subsequent implantations gave constantly negative results. These experimental data correspond to what is observed in the clinic during the period preceding metastasis. The cancer long remains solitary, and, especially with cancer in mucous membranes, notwithstanding the constant opportunities for implantation of tumor cells farther along, the mucosa beyond is generally free from metastases, even with extensive ulceration. After vaginal hysterectomy for cancer of the uterus, he continues, recurrence in the vagina is not uncommon, while metastases in the vagina, with the uterine cancer still present, are extremely rare.

These and similar data cited are alleged to explain why radiotherapy is more promising in certain cases than surgical removal of the focus. Under the radiotherapy, the cancer cells being gradually destroyed and passing into the circulation, cause a lively production of antibodies, and these protecting substances combat the growth of any new cancer cells. The antibodies thus generated are similar in nature to the autolysates of cancer cells which some are using now in treatment of cancer. None of the experiences in this line reported to date, however, make the distinction which he emphasizes between the periods before and during metastasis. The nonheeding of this fundamental distinction readily explains the unsatisfactory results to date. It is by no means immaterial whether the tumor autolysates are taken from the body while it is still engaged in producing antibodies, that is, during the premetastasis stage, or whether the material is not taken until after the body has lost its capacity for antibody production.

He describes his fifteen cases in detail; in three the cancer was on the tongue and the radium induced a clinical cure. In one case, only seven twelve-hour exposures, all at night, accomplished the purpose, the cancerous crater healing completely in a few weeks. In seven cases the cancer was in the lower jaw and in five others in the upper jaw. The radium was fastened in a plate made to fit over the upper or lower teeth. One patient wore this for thirty nights' exposures, and it did not interfere with his sleep. In two other cases the cancer was a recurrence after one or several operations. By modifying the tooth-plate-holder it was possible to apply the rays in various directions thus facilitating the cure.

BOOK REVIEWS

SIMPLEX HAND BOOK OF DENTAL MATERIA MEDICA AND THERAPEUTICS.

By ALFRED and WESLEY BARRETT. Oblong 16mo. 350 pages.
Price, \$1.75 *net*. Publisher, Peter Reilly, Philadelphia, Pa.

A simple, tabulated classification of Drugs and Remedies used in Dental Operations and the Treatment of Dental Diseases; specially adapted to the requirements of students and busy practitioners.

A great mass of facts are brought together in alphabetical order which will be appreciated and save valuable time in making reference.

The authors have spared no pains in endeavoring to make this the best work of its kind.

BOOKS RECEIVED

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, Division of Inter-course and Education, Publication No. 7. **FOR BETTER RELATIONS WITH OUR LATIN AMERICAN NEIGHBORS. A JOURNEY TO SOUTH AMERICA.** By ROBERT BACON, Washington, D. C.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, Founded December 14, 1910. Year Book for 1915, Washington, D. C.

DR. DWIGHT TRACY

Dr. Dwight Tracy died November 7, 1915. He was well known in New York City and was most successful in his profession.

Dr. Tracy leaves a son who is also a dentist of note.

A. STILLWELL

Mr. A. Stillwell, a valued employee of The Temple-Pattison Co., Ltd., Ont., Canada, died Friday November 26th, 1915 after a very painful illness.

He was a man who took a great interest in the welfare of the dentist, and was the oldest dental salesman in the Dominion of Canada. He was connected with the old firm of the S. B. Chandler Co., over 28 years ago, and ever since that time he has been identified with the dental supply business. The Temple-Pattison Company deeply feel his loss, as must, also, his numerous friends.

SOCIETY NOTES

DISTRICT OF COLUMBIA.

The next examination of applicants for license to practise in the District of Columbia, will be held at the George Washington University, Washington, January 3-6, 1916. Applications should be in the hands of the secretary two weeks before the date of the examination. Fee \$10—STARR PARSONS, 1309 L Street, N. W., Washington, *Secretary*.

MINNESOTA.

The thirty-third annual convention of the Minnesota State Dental Association will be held at the University of Minnesota, in Minneapolis, February 11-12, 1916.—MAX E. ERNST, 614 Lowry Bldg., St. Paul, Minn., *Secretary*.

The annual meeting of the American Institute of Dental Teachers will be held at Hotel Radisson, Minneapolis, January 25, 26, and 27, 1916.—J. F. BIDDLE, *Secretary*.

MISSOURI.

The next meeting of the Washington University Dental Alumni Association will be held at the University Dental School, February 21-22, 1916.—H. M. FISHER, Metropolitan Bldg., St. Louis, Mo., *Secretary*.

NORTH CAROLINA.

The next meeting of the North Carolina State Board of Dental Examiners will be held at Salisbury, N. C., beginning promptly at 9.00 o'clock on Thursday, January 13, 1916. For further information and application blanks address the Secretary, F. L. HUNT, Asheville, N. C.

NORTH DAKOTA

The next meeting of the North Dakota State Board of Dental Examiners will be held at Fargo, N. Dak., January 11, 1916. For further information address, W. E. HOCKING, Devil's Lake, N. D.

SOUTH DAKOTA.

The South Dakota State Board of Dental Examiners will hold its next meeting at Sioux Falls, So. Dak., January 11, 1916, at 9 A.M. sharp, continuing three days. All applications must be in the hands of the Secretary by January 1st. Fee \$25. ARIS L. REVELL, Lead, So. Dak., *Secretary*.

WISCONSIN.

The next meeting of the Wisconsin State Dental Society will be held in Wausau, Wis., July 11-13, 1916.—THEO. L. GILBERTSON, *Secretary*.

FUTURE EVENTS

January 3-6, 1916.—Board of Dental Examiners for the District of Columbia, George Washington University, Washington.—STARR PARSONS, 1309 L Street, N. W., *Secretary*.

January 11, 1916.—South Dakota State Board of Dental Examiners, Sioux Falls, So. Dak.—ARIS L. REVELL, Lead, S. D., *Secretary*.

January 10-13, 1916.—Montana State Board Dental Examiners.—G. A. CHEVIGNEY, *Secretary*.

January 11, 1916.—North Dakota State Board of Dental Examiners, Fargo, N. Dakota.—W. E. HOCKING, Devils Lake, N. D., *Secretary*.

- January 13, 1916.—North Carolina State Board of Dental Examiners, Salisbury, N. C.—F. L. HUNT, Asheville, N. C., *Secretary*.
- January 25-27, 1916.—American Institute of Dental Teachers, Minneapolis, Minn.—J. F. BIDDLE, *Secretary-Treasurer*.
- January 28-29, 1916.—Annual Clinic of the Chicago Dental Society, Hotel La Salle, Chicago, Ill.—PERCY B. D. IDLER, 30 No. Michigan Ave., *Secretary*.
- February 11-12, 1916.—The thirty-third Annual Meeting of the Minnesota State Dental Association, at the University of Minnesota, Minneapolis.—MAX E. ERNST, 614 Lowry Bldg., St. Paul, Minn., *Secretary*.
- February 16-18, 1916.—The tenth annual clinic, Manufacturers' and Dealers' Exhibit of the Marquette University Dental Alumni Association, Milwaukee Auditorium, Milwaukee, Wis.—V. A. SMITH, *Secretary*.
- February 21-22, 1916.—Golden Jubilee of the Washington University Dental School, at the Dental School, 29th and Locust Sts., St., Louis Mo.—H. M. FISHER, Metropolitan Bldg., *Secretary*.
- February 23-24, 1916.—Central Pennsylvania Dental Society, Johnstown, Pa.—*Chairman Exhibit Committee*, C. A. MATTHEWS.
- March 20-26, 1916.—The Tri-State Post Graduate Dental Meeting (Missouri, Kansas, Oklahoma), Kansas City, Mo.—C. L. LAWRENCE, Enid, Okla., *Secretary*.
- April 4-7, 1916.—Dental Manufacturers' Club, Chicago, Ill. Meeting in the Banquet Hall, Auditorium Hotel.—*Chairman Exhibit Committee*, A. C. CLARK, Grand Crossing, Chicago.
- April 14-16, 1916.—West Virginia State Dental Association, Kanawha Hotel, Charleston.
- May, 1916.—Indiana State Dental Association, Claypool Hotel, Indianapolis, Ind.—A. R. Ross, *Secretary*.
- May 2-4, 1916.—Iowa State Dental Society, Des Moines, Ia. H. A. ELMQUIST, Des Moines, Ia., *Chairman of Exhibit*.
- June, 1916.—Florida State Dental Society, Orlando, Fla.—M. C. IZLAR, *Corres. Secy*.
- July 11-13, 1916.—Wisconsin State Dental Society Meeting, Wausau, Wis.—THEO. L. GILBERTSON, *Secretary*.
- October, 18-20, 1916.—Virginia State Dental Association, Richmond, Va.—C. B. GIFFORD, Norfolk, Va., *Corresponding Secretary*.

IMPORTANT POSTPONEMENT

The meeting of the National Association of Dental Faculties which was to have been held in Minneapolis, January 28-29, 1916, has been postponed to meet in Louisville in July, 1916. The exact dates will be announced later.

B. HOLLY SMITH, Chairman Ex. Com.
N. A. D. F.